MARINE CORPS ORDER 3500.45A

From: Commandant of the Marine Corps
To: Distribution List

Subj: AVIATION TRAINING AND READINESS (T&R) MANUAL, EA-6B
      (SHORT TITLE: EA-6B T&R MANUAL)

Ref: (a) MCO P3500.14H
      (b) MCO 5215.1H

Encl: (1) LOCATOR SHEET

1. <u>Purpose</u>. To publish policies, procedures and standards regarding the training of EA-6B aircrew, per reference (a).
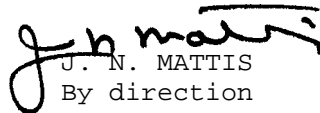
2. <u>Cancellation</u>. T&R Manual, EA-6B, MCO P3500.45.

3. <u>Background</u>. Significant changes to reference (a) directed a revision to this Manual in the following categories: Unit Mission Statement, Unit Core Capability Statement, Unit Mission Essential Task List, Unit Core Skill Proficiency requirements, Unit Instructor requirements, and T&R syllabi structure. Reference (a) prescribes a unique template to provide the commander with standardized programs of instruction. As such, this order deviates from the five paragraph order format outlined in reference (b).

4. <u>Recommendations</u>. Recommended changes to this order are invited, and may be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training Command (C 473), Marine Corps Combat Development Command, 3300 Russell Road, Quantico, VA 22134-5001.

5. <u>Reserve Applicability</u>. This manual is applicable to the Marine Corps Total Force.

6. <u>Certification</u>. Reviewed and approved this date.

J. N. MATTIS
By direction

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EA-6B PILOT AND ELECTRONIC COUNTERMEASURES OFFICER (ECMO)

FIGURE

100. <u>UNIT CORE COMPETENCY</u>

1. <u>Background</u>. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The EA-6B T&R Manual represents the collaborative effort of EA-6B Subject Matter Experts who designed training standards to maximize the full combat capabilities of the EA-6B and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander. The capabilities defined and described in the core competency model are provided to ensure each like squadron maintains a common base of training and depth of capabilities. When resources permit, and when in the judgment of the commander additional training would significantly increase the unit's warfighting capability, training to a level above these base capabilities is permitted. It is incumbent upon, and expected of, the commander to balance any increase in the depth of core capabilities against the long-term health and readiness of his unit while staying within his resource constraints.

2. <u>VMAQ Mission</u>. Support the MAGTF Commander by conducting airborne electronic warfare, day or night, under all weather conditions during Expeditionary, Joint, or Combined Operations.

3. <u>Mission Essential Task List (METL)</u>

    a. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
      - Maintain the capability of operating from naval shipping, advanced bases, and expeditionary airfields
      - Maintain the capability to conduct extended range operations using air refueling
      - Perform organizational maintenance on assigned aircraft

    b. (UJTL TA 2) Develop Intelligence
      - Conduct airborne ES against communication/RADAR systems and associated architecture
      - Process and provide mission data obtained from EW missions and National sources to update targeting and to maintain Electronic Orders of Battle (EOB)
      - Interface with and contribute to all-source theater level Electronic Orders of Battle

    c. (UJTL TA 2.4) Disseminate Tactical Warning and Attack Assessment.

    d. (UJTL TA 3.2.4) Conduct Joint Suppression of Enemy Air Defenses
      - Conduct non-kinetic overt/covert denial, deception, and intrusion operations against communication/RADAR systems and associated architecture within an air defense system

        - Degrade, neutralize or destroy air defense RADAR and communications links with anti-radiation missiles
        - Employ bulk chaff

    e. (UJTL TA 3.2.6) Conduct Attacks Using Non-lethal Means
        - Conduct non-kinetic overt/covert denial, deception, and intrusion operations against communication/RADAR systems and associated architecture
        - Employ bulk chaff
        - Coordinate airborne electronic attack with MAGTF, Joint and Coalition airborne and ground based EW assets
        - Integrate airborne electronic attack with lethal fires and fire-support planning

    f. (UJTL TA 3.2.7) Conduct Air and Missile Defense operations

    g. (UJTL TA 5.6) Employ Tactical Information Operations
        - Provide Electronic Warfare, military deception and psychological operations in support of a Tactical, Operational, and Strategic Information Operations (IO) plan

    h. (UJTL TA 6) Protect the Force
        - Conduct airborne EA operations for Electronic Protection (EP) training
        - Maintain self-protect capability against air and surface threats
        - Conduct Task Force Support operations

4. <u>Table of Organization</u>. Refer to Table of Organization 8880 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for EA-6B units. As of this publication date, EA-6B units are authorized:

<u>Squadron</u>
5 aircraft
8 Pilots
21 ECMOs

5. <u>Core Capability</u>. A core capable squadron is able to sustain 4 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on 2.0 hour average sortie duration and assume $\geq$ 70 percent FMC aircraft and $\geq$ 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or aircraft carrier.

6. <u>METL/Core Skill Matrix</u>. Unit core skills directly support the unit METL as follows:

METL	FAM/ NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
		EA-6B CORE SKILL								
A. Conduct Sea and Air Deployment Operations.	X	X	X	X					X	
B. Develop Intelligence	X	X	X		X			X	X	
C. Disseminate Tactical Warning and Attack Assessment.	X	X	X		X			X	X	
D. Conduct Joint Suppression of Enemy Air Defenses	X	X	X		X	X	X	X	X	X
E. Conduct Attacks Using Non-lethal Means.	X	X	X		X	X	X	X	X	X
F. Conduct air and Missile Defense operations	X	X	X		X	X	X	X	X	X
G. Employ Tactical Information Operations.	X	X	X		X	X	X	X	X	X
H. Protect the Force.	X	X	X		X	X	X	X	X	X

METL	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
EA-6B CORE PLUS SKILL							
A. Conduct Sea and Air Deployment Operations.	X	X				X	X
B. Develop Intelligence.			X				
C. Disseminate Tactical Warning and Attack Assessment.			X				
D. Conduct Joint Suppression of Enemy Air Defenses			X	X	X		
E. Conduct Attacks Using Non-lethal Means.			X	X	X		
F. Conduct Air and Missile Defense Operations			X	X	X		
G. Employ Tactical Information Operations.			X	X	X		
H. Protect the Force.		X	X	X	X		

7. <u>Core Model Minimum Requirements (CMMR)</u>. Squadron core competency is measured in terms of CMMR - the minimum numbers of core skill proficient crews and minimum numbers of flight leaders per paragraphs a and b below:

    a. <u>Minimum Unit CSP Requirements</u>. At a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP). The standard EA-6B crew consists of 1 Pilot and 1 ECMO for the Fam/Nav, Formation, Night Systems, and Aerial Refueling stages. Other crew positions are occupied as necessary in accordance with NATOPS and local SOP. The standard EA-6B crew consists of 1 Pilot and 3 ECMOs for all other stages. In order to be considered proficient in a core skill (Individual CSP), an individual must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

NOTE: Proficiency in Core Plus skills is not required to obtain Unit CSP. Below are EA-6B community recommended unit/individual proficiency standards for Core Plus skills.

EA-6B Unit CSP Requirements			
CORE SKILL	PILOT	ECMO	CREWS
FAM/NAV	5	5	5
FORM	5	5	5
NS	5	15	5
AR	5	5	5
ES	5	15	5
EA	5	15	5
TRXN	5	15	5
OAS	5	15	5
TFS	5	15	5
DEFTAC	3	9	3
EA-6B Unit Core Skill Plus Proficiency Standards			
CORE PLUS SKILL	PILOT	ECMO	CREWS
LOW ALT AR	2	2	2
SECTION DEFTAC	2	6	2
EW	2	6	2
EAF	2	2	2
CQ	1	1	1

(1) Events Required to Attain Individual CSP. To initially attain CSP, an individual must successfully complete all of the T&R events listed in the chart below for that core skill:

EA-6B Pilot	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to attain CSP.	200 201 202 203 204 205 206	210 211 212	220 221 222 223	230 231	240 241 243	250 251 253 255 257	260 261	300 301 302 303 304 306 307 309	310 311 312 313 314 315 316 317	320 321 322

EA-6B Pilot*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to attain CSP.	400	410	420 421 422 423 424	430	440	450 451 452	460 461 462 463 464

EA-6B ECMO	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to attain CSP.	200 201 202 203 204 205 206	210 211 212	220 221 222 223	230 231	240 241 242 243 244 245	250 251 252 253 254 255 256 257 258	260 261	300 301 302 303 304 306 307 309	310 311 312 313 314 315 316 317	320 321 322

EA-6B ECMO*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to attain CSP.	400	410	420 421 422 423 424	430	440	450 451 452	460 461 462 463 464

(2) <u>Events Required to Maintain Individual CSP</u>. To maintain CSP, an individual must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

EA-6B Pilot	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to maintain CSP.	203 204 206	212	220	230 231	241	257	261	301 302 304 307	313 316 317	320 322

EA-6B Pilot*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to maintain CSP.	400	410	420 422 423 424	430	440	451 452	

EA-6B ECMO	FAM NAV	FORM	NS	AR	ES	EA	TRXN	OAS	TFS	DEFTAC
T&R event requirements to maintain CSP.	203 204 206	212	220	230	240 241 242 243 244 245	250 251 252 253 254 255 256 257 258	261	301 302 304 307	313 316 317	320 322

EA-6B ECMO*	FORM	AR	EW	TRXN	DEFTAC	EAF	CQ
T&R event requirements to maintain CSP.	400	410	420 422 423 424	430	440	451 452	

    b. <u>Minimum Combat Leader Requirements</u>. At a minimum, in order to be considered Core Competent, a unit must posses the following numbers of aircrew with the listed leadership designations.

DESIGNATION	SQDN Pilots	SQDN ECMOs
MSN CMDR	3	8
DIV LDR	2	NA
SEC LDR	4	NA

8. <u>Qualifications And Designations Tables</u>

    a. The table below delineates T&R events required to be completed to attain initial qualifications, to re-qualify, and to attain designations. All stage lectures, briefs, squadron training, and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the Commanding Officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in ALL qualification events causes the associated qualification to be lost. Regaining a qualification requires completing all "R" coded syllabus events associated with the qualification.

Qualification (Tracking Code)	Initial Event Qualification Requirements
NSQ (QUAL-610)	Minimum of four events supervised by designated NSI – NS-220R, NS-221, NS-222, NS-223.
DEFTACQ (QUAL-611)	Minimum of three events supervised by designated DEFTACI – DEFTAC-320, DEFTAC-321, DEFTAC-322.
F/S NATOPS (REQ-600)	IAW OPNAV 3710.7, EA-6B NATOPS, and an annual qualification letter signed by the Commanding Officer.
B/S NATOPS (REQ-601)	IAW OPNAV 3710.7, EA-6B NATOPS, and an annual qualification letter signed by the Commanding Officer.
INSTRUMENT (REQ-602)	IAW OPNAV 3710.7 NATOPS Instrument Flight Manual, and an annual qualification letter signed by the Commanding Officer.
CRM (REQ-603)	IAW OPNAV 3710.7 and OPNAV 1542.7 Crew Resource Management and shall be recorded in the individual's NATOPS jacket.

Designation (Tracking Code)	Designation Requirements
SECTION LEAD (DESIG-637)	Formation core skill complete. Night Systems qualified. SLUT 630-636 complete.
DIVISION LEAD (DESIG-643)	Section Lead designated. DLUT 638-642 complete.
MISSION COMMANDER (DESIG-659)	OAS and TFS core skills complete. MCUT 644-658 complete.
LSO (DESIG-669)	There are no sorties required to field qualify an LSO; however, the individual does require evaluation of his performance during EAF/FCLP operations by a Training LSO.
NSI (DESIG-660)	IAW the MAWTS-1 EA-6B Course Catalog.
DEFTACI (DESIG-661)	IAW the MAWTS-1 EA-6B Course Catalog.
WTI (DESIG-663)	IAW the MAWTS-1 EA-6B Course Catalog.
FCF Pilot / ECMO (DESIG-671)	IAW NATOPS and local SOP. FCF 670 check.
A NATOPS (I) (DESIG-665)	IAW NATOPS and local SOP.
NATOPS (I) (DESIG-664)	IAW NATOPS and local SOP.
INST EVAL (DESIG-666)	IAW NATOPS and local SOP.
CRM (I) (DESIG-667)	IAW NATOPS and local SOP.
CRM FACILITOR (DESIG-668)	IAW NATOPS and local SOP.
EWTO (DESIG-662)	IAW the MAWTS-1 EA-6B Course Catalog

b. Instructor Requirements. A unit should possess the following numbers of aircrew with the listed instructor designations IAW MCO 3500.12C (WTTP).

INSTRUCTOR DESIGNATION	SQDN PILOTS	SQDN ECMOs
DEFTACI	1	1
NSI	2	2
WTI	1	2
LSO	2	NA

9. Training Progression Model. The training progression model provides community recommended core skill, qualification, and designation attainment timelines for the average crewmember.
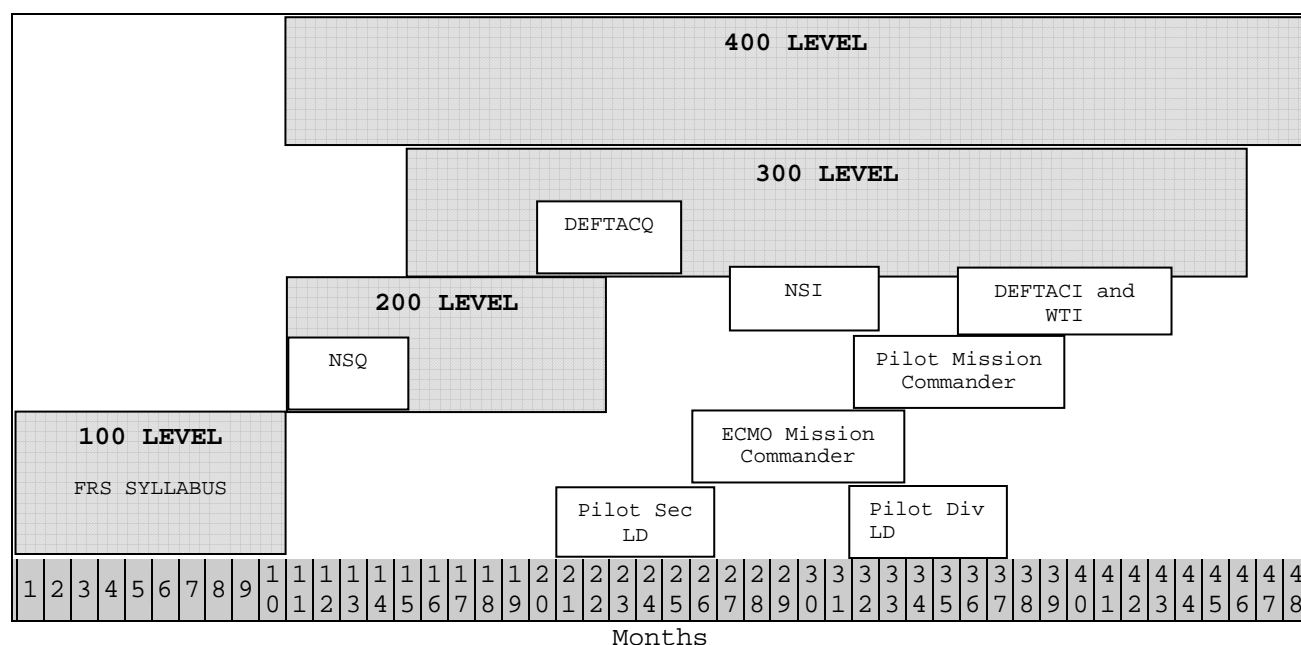
Figure 1.--EA-6B Core Progression Model.

101. POI FOR BASIC/TRANSITION/CONVERSION PILOT AND ECMO. EA-6B Pilots and ECMOs will complete all training per CNO approved syllabus provided at VAQ-129. Other training is administered through the tactical squadron.

1. Pilot

WEEKS	COURSE/PHASE	ACTIVITY
1-5	AVEWS Introduction	NAS Whidbey Is
6-42	Core Skill Introduction	FRS
43-95	Core Skill Basic Training	Tactical Squadron
96-122	Core Skill Advanced Training	Tactical Squadron
123-149	Core Plus Training	Tactical Squadron

2. ECMO

WEEKS	COURSE/PHASE	ACTIVITY
1-10	AVEWS Introduction	NAS Whidbey Is
11-51	Core Skill Introduction	FRS
52-104	Core Skill Basic Training	Tactical Squadron
105-131	Core Skill Advanced Training	Tactical Squadron
132-158	Core Plus Training	Tactical Squadron

102. POI FOR REFRESHER PILOT AND ECMO

1. Pilot

WEEKS	COURSE/PHASE	ACTIVITY
	Core Skill Introduction:	NAS Whidbey
1	Safe For Solo	FRS
1-4	Modified Refresher	FRS
1-24	Refresher	FRS
25-36	Core Skill Basic Training	Tactical Squadron
37-52	Core Skill Advanced Training	Tactical Squadron
53-62	Core Plus Training	Tactical Squadron

2. ECMO

WEEKS	COURSE/PHASE	ACTIVITY
	Core Skill Introduction:	NAS Whidbey
1-4	Modified Refresher	FRS
1-15	Refresher	FRS
25-36	Core Skill Basic Training	Tactical Squadron
37-52	Core Skill Advanced Training	Tactical Squadron
53-62	Core Plus Training	Tactical Squadron

103. POI FOR PILOT AND ECMO IUT

1. Pilot and ECMO DEFTAC IUT

WEEKS	COURSE/PHASE	ACTIVITY
1-3	IUT reviews DEFTAC syllabus	Tactical Squadron
4	IUT presents lectures and practices briefing	Tactical Squadron/MAWTS-1
5-6	IUT flies DEFTACI syllabus	Tactical Squadron/MAWTS-1

2. Pilot and ECMO Night Systems (NS) IUT

WEEKS	COURSE/PHASE	ACTIVITY
1	IUT reviews NS syllabus	Tactical Squadron
2-3	IUT flies NSI syllabus	Tactical Squadron/MAWTS-1

110. GROUND/ACADEMIC TRAINING COURSES OF INSTRUCTION
Utilize the academic courseware as outlined in the EA-6B chapter of the MAWTS-1
Course Catalog.

111. <u>ASSOCIATED GROUND INSTRUCTION</u>

COURSE/PHASE	ACTIVITY
Night Systems Instructor	NITE Lab/VMAQ/MAWTS-1
Defensive Tactics Instructor (DEFTACI)	Tactical/MAWTS-1
Electronic Warfare Tactics Officer (EWTO)	MAWTS-1
Weapons and Tactics Instructor (WTI)	MAWTS-1
IO SME Course	EAWS
HARM University	NAWC CHINA LAKE
Crew Resource Management Instructor	NAS Pensacola
Landing Signal Officer (LSO)	LSO School/VAQ-129
Information Operations Course	Various Locations
Strike Leader Attack Training Syllabus	NSAWC
Prowler Tactics Instructor (PTI)	EAWS

112. <u>SQUADRON LEVEL TRAINING</u>

Operations/Squadron Flight SOP/T&R Manual In-brief
TACSOP
Crew Resource Management
Course Rules Brief/Exam

113. <u>TRAINING REFERENCES</u>

Appropriate MAW Flight SOP
Appropriate MAG Flight SOP
Appropriate VMAQ Flight SOP
Appropriate MCAS Air Operations SOP
NATOPS General Flight and Operating Instructions
Landing Signal Officer NATOPS
NATOPS Instrument Flight Manual
CV NATOPS Manual
NATOPS Air Refueling Manual
EA-6B NATOPS Flight Manual
EA-6B ICAP II Weapon System Operators Manual (WSOM)
EA-6B Tactical Manual NTTP 3-22.1/AFTTP 3-1.13
HARM Tactical Manual
VMAQ Tactical SOP
MAWTS-1 EA-6B Course Catalog
EAWS Courseware
VAQ-129 Courseware
Weapons Tactics and Training Order (WTTP)
TOPGUN Manual
TEAMS System Operators Manual
ETIRMS
SLATS Notebook

120. <u>FLIGHT/SIMULATOR/EVENT TRAINING</u>. The 4 phases of instruction divide the basic training program into the following areas:

    a. Core Skill Introduction Training

    b. Core Skill Basic Training

    c. Core Skill Advanced Training

    d. Core Plus Training

121. FLIGHT/SIMULATOR/EVENT TRAINING: BASIC, TRANSITION, CONVERSION PILOT AND ECMO

CORE SKILL INTRODUCTION TRAINING. Refer to CNO approved training syllabus conducted in the FRS at VAQ-129.

Core Skill Basic Training

    a. Pilot

STAGE	EVENTS	HOURS	PERCENT
Familiarization/Navigation	7	11.5	3.5
Formation	3	6.0	2.0
Night Systems	4	8.0	2.0
Aerial Refueling	2	2.0	2.0
Electronic Warfare Support	3	5.0	1.0
Electronic Attack	5	8.0	2.5
Threat Reaction	2	2.5	2.0
Total	26	43.0	15.0

    b. ECMO

STAGE	EVENTS	HOURS	PERCENT
Familiarization/Navigation	7	11.5	3.5
Formation	3	6.0	1.5
Night Systems	4	8.0	2.0
Aerial Refueling	2	2.0	1.0
Electronic Warfare Support	6	8.5	2.5
Electronic Attack	9	13.0	3.0
Threat Reaction	2	2.5	1.5
Total	33	51.5	15.0

Core Skill Advanced Training

    a. Pilot

STAGE	EVENTS	HOURS	PERCENT
Offensive Air Support	10	20.0	10.5
Task Force Support	8	16.0	6.5
Defensive Tactics	3	5.0	3.0
Total	21	41.0	15.0

    b. ECMO

STAGE	EVENTS	HOURS	PERCENT
Offensive Air Support	10	20.0	10.5
Task Force Support	8	16.0	6.5
Defensive Tactics	3	5.0	3.0
Total	21	41.0	15.0

Core Plus Training

    a. <u>Pilot</u>

STAGE	EVENTS	HOURS	PERCENT
Formation	1	2.0	0.5
Air Refueling	1	1.0	0.5
Electronic Warfare	5	10.0	2.5
Threat Reaction	1	1.5	0.5
Defensive Tactics	1	1.5	0.5
Expeditionary Airfield Ops	3	4.0	0.5
Carrier Qualification	5	6.0	0.0
Total	17	26.0	5.0

    b. <u>ECMO</u>

STAGE	EVENTS	HOURS	PERCENT
Formation	1	2.0	0.25
Air Refueling	1	1.0	0.25
Electronic Warfare	5	10.0	3.0
Threat Reaction	1	1.5	0.5
Defensive Tactics	1	1.5	0.5
Expeditionary Airfield Ops	3	4.0	0.5
Carrier Qualification	5	6.0	0.0
Total	17	26.0	5.0

122. <u>FLIGHT/SIMULATOR/EVENT TRAINING: REFRESHER PILOT AND ECMO</u>

<u>CORE SKILL INTRODUCTION TRAINING</u>. Refer to CNO approved training syllabus conducted in the FRS at VAQ-129.

<u>Core Skill Basic Training</u>

    a. <u>Pilot</u>

STAGE	EVENTS	HOURS	PERCENT
Familiarization/Navigation	3	5.5	3.5
Formation	1	2.0	2.0
Night Systems	1	2.0	2.0
Aerial Refueling	2	2.0	2.0
Electronic Warfare Support	1	2.0	1.0
Electronic Attack	1	1.0	2.5
Threat Reaction	1	1.5	2.0
Total	10	16.0	15.0

    b. <u>ECMO</u>

STAGE	EVENTS	HOURS	PERCENT
Familiarization/Navigation	3	5.5	3.5
Formation	1	2.0	1.5
Night Systems	1	2.0	2.0
Aerial Refueling	1	1.0	1.0
Electronic Warfare Support	6	8.5	2.5
Electronic Attack	9	13.0	3.0
Threat Reaction	1	1.5	1.5
Total	22	33.5	15.0

Core Skill Advanced Training

    a. <u>Pilot</u>

STAGE	EVENTS	HOURS	PERCENT
Offensive Air Support	6	12.0	10.5
Task Force Support	3	6.0	6.5
Defensive Tactics	2	3.0	3.0
Total	11	21.0	20.0

    b. <u>ECMO</u>

STAGE	EVENTS	HOURS	PERCENT
Offensive Air Support	6	12.0	10.5
Task Force Support	3	6.0	6.5
Defensive Tactics	2	3.0	3.0
Total	11	21.0	20.0

Core Plus Training

    a. <u>Pilot</u>

STAGE	EVENTS	HOURS	PERCENT
Formation	1	2.0	0.5
Air Refueling	1	1.0	0.5
Electronic Warfare	4	8.0	2.5
Threat Reaction	1	1.5	0.5
Defensive Tactics	1	1.5	0.5
Expeditionary Airfield Ops	2	2.0	0.5
Carrier Qualification	0	0.0	0.0
Total	10	16.0	5.0

    b. <u>ECMO</u>

STAGE	EVENTS	HOURS	PERCENT
Formation	1	2.0	0.25
Air Refueling	1	1.0	0.25
Electronic Warfare	4	8.0	3.0
Threat Reaction	1	1.5	0.5
Defensive Tactics	1	1.5	0.5
Expeditionary Airfield Ops	2	2.0	0.5
Carrier Qualification	0	0.0	0.0
Total	10	16.0	5.0

123.   <u>INSTRUCTOR UNDER TRAINING (IUT)</u>

1. <u>Pilot and ECMO DEFTAC IUT</u>. Refer to the MAWTS-1 EA-6B Course Catalog, which contains the POI for the DEFTAC IUT.

2. <u>Pilot and ECMO NS IUT</u>. Refer to the MAWTS-1 EA-6B Course Catalog, which contains the POI for the Night Systems IUT.

130. <u>EVENT PERFORMANCE REQUIREMENTS</u>

1. <u>General</u>

    a. Mission guidance is generalized to allow for local conditions and to allow this document to remain unclassified. Squadrons are encouraged to use the full range of tactics contained in the tactical manuals, TACSOP, and to adopt the latest developed and proven tactics.

b. All flights shall terminate with a comprehensive debrief with emphasis on aircrew performance utilizing all evaluation techniques available (e.g., TACTS, EW Range, participating aircrews, and AIC personnel).

c. An Aircrew Training Form (ATF) is required for all initial events and E-coded events. Each stage description identifies evaluating aircrew responsibilities.

d. The Aviation T&R Program Manual is the Marine Corps aircrew training document. It relates the training requirements and standards for Marine aircrew. When operational commanders assign EA-6B squadrons to prolonged commitments where specific EA-6B T&R training is not available (e.g., deployed), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the EA-6B in specific missions relating to their current situation and avoid those mission areas not relevant to their situation. It is not intended for squadrons to train to specific mission areas and avoid training in areas that are difficult to coordinate. This type of mission specific training is granted only to squadron commanding officers deployed in austere conditions that prevent them from executing the EA-6B T&R manual as written.

e. The sequence of events in the Basic/Conversion/Transition POI progresses in a systematic manner and should be accomplished in order.

f. Flight simulators will be utilized to the maximum extent possible. To enhance flight training and airborne proficiency, simulators shall be flown as a prerequisite for all stages of training that require a simulator event when squadrons are located near mission capable simulators. In locations where mission capable simulators are not available, stage simulator events shall not be prerequisites for stage flights and are not required to be completed until a mission capable simulator is later available. CRP credit shall not be granted for any simulator until it is actually completed. Note: SARA error messages will occur if prerequisites are not met. They should be expected and briefed to the commanding officer as being in accordance with this paragraph.

g. Crew Resource Management (CRM) shall be briefed for all flights and/or events.

h. Event Requirements and Mission Performance Standards. Requirements and performance standards are listed in each T&R event description. These are training standards for individual aircrew performance and should be used by the evaluator as a guideline to determine the satisfactory completion of each event. If the aircrew did not successfully complete all requirements and performance standards, the evaluating officer shall determine if the event is complete or incomplete. If incomplete, the event T&R code shall not be logged and the event re-flown. If complete, all applicable aircrew log the appropriate codes; in addition, all aircrew should log lower level event codes when the performance standards of the lower level events have been met. For example, in many OAS and TFS stage events, ECMO 2 and 3 may log ES-242 and EA-252 additional to the 300-level codes. The Mission Commander shall determine which codes are logged in NALCOMIS.

i. Event Condition Codes

S - Simulator event only.
A - Aircraft event only.
S/A - Simulator preferred/Aircraft optional.
A/S - Aircraft preferred/Simulator optional.
N - Must be flown at night, aided or unaided.
NS - Must be flown at night utilizing available night systems.
(N) - May be flown at night, aided or unaided.
(NS) - May be flown at night; if flown at night, available night systems shall be utilized.

j. Requirements and Performance Definitions

(1) Discuss

(a) The evaluator shall discuss a task or maneuver during the brief, in flight, or debrief.

(b) The aircrew under instruction is responsible for knowledge of the applicable procedures prior to the briefing.

(2) Demonstrate

(a) The evaluator performs the task with accompanying description.

(b) The aircrew under instruction observes the task and is responsible for the knowledge of the procedures prior to the sortie.

(3) Introduce

(a) At his or her option, the evaluator may perform the task or maneuver with an accompanying description, or he may coach the aircrew under instruction through the task or maneuver without demonstration.

(b) The aircrew under instruction shall perform the task or maneuver with coaching as necessary and is responsible for knowledge of the procedures prior to the sortie.

(4) Review

(a) The evaluator observes and grades the task or maneuver without coaching the aircrew under instruction. An airborne critique of aircrew under instruction performance is at the option of the evaluator.

(b) The aircrew under instruction is expected to perform the task or maneuver without coaching and devoid of procedural error at a level acceptable to warrant progress into the next event or stage of training.

131. CORE SKILL INTRODUCTION TRAINING

1. General. Core Skill Introduction training is conducted at VAQ-129, NAS Whidbey Island. The training consists of ground school, simulators, and aircraft flights. A detailed description of Core Skill Introduction training may be found in the VAQ-129 Course Catalog.

132. CORE SKILL BASIC TRAINING

1. General

     a. This phase contains basic core skill training essential to wartime employment of the EA-6B. This phase should move an individual from basic understanding of core skills to proficiency in basic core skills. Individuals should normally complete this phase of training within the first year of assignment to a squadron. Units will normally train aircrews through this phase prior to overseas assignment.

     b. Core Skill Basic Stages

          (1) Familiarization/Navigation (FAM/NAV)

          (2) Formation (FORM)

          (3) Night Systems (NS)

          (4) Air Refueling (AR)

          (5) Electronic Warfare Support (ES)

          (6) Electronic Attack (EA)

          (7) Threat Reaction (TRXN)

2. Familiarization/Navigation Stage

     a. Purpose. Develop proficiency for Pilot and ECMO 1 in familiarization and navigation skills.

     b. General. Emphasize crew coordination, emergency procedures, local course rules, aircraft performance characteristics, and navigation skills. The proficient Pilot or ECMO 1 shall evaluate the other front-seat aircrew under instruction.

     c. Crew Requirements. Training codes apply only to Pilot and ECMO 1. Other crew positions may be manned and conduct other training as required.

     d. Ground/Academic Training. Per local SOP. This normally includes, but is not limited to local course rules, standard operating procedures, etc. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

     e. Flight and Simulator Event Training (4 flights, 7.5 hours/3 simulators, 4.0 hours)

SEP-200   1.0   1 2F143 S

                 Goal. Maintain Pilot/ECMO proficiency in dealing with ground, takeoff, in-flight, and landing emergencies.

                 Requirement
                 1. Discuss emergency procedures.
                 2. Respond correctly to ground emergencies.
                 3. Respond correctly to takeoff emergencies.
                 4. Respond correctly to in-flight emergencies.
                 5. Respond correctly to landing emergencies.
                 6. Perform spin recovery procedures.

7. Practice out of control flight procedures.

<u>Performance Standards</u>. Accurately respond to all emergencies presented. The Pilot/ECMO 1 should switch positions, time permitting.

<u>Crew</u>. Pilot/ECMO 1.

<u>Prerequisites</u>. None.

<u>Ordnance</u>. None.

<u>External Support</u>. None.

<u>SNAV-201</u>   <u>2.0</u>   <u>1 2F143 S</u>

<u>Goal</u>. Maintain Pilot/ECMO 1 proficiency in day instruments, radar, and navigation systems. Be able to identify and effectively deal with navigation system failures. Expose the Pilot/ECMO 1 to local course rules and squadron operating procedures.

<u>Requirement</u>
1. Discuss instruments, radar, and navigation systems.
2. Prepare DD-175 and route card.
3. Introduce local course rules and standard operating procedures.
4. Perform at least one precision and one non-precision approach to a local airfield.
5. Perform one simulated single engine and one no flap/no slat approach to landing.

<u>Performance Standards</u>. IAW NATOPS, local course rules, and local SOP.

<u>Crew</u>. Pilot/ECMO 1.

<u>Prerequisites</u>. None.

<u>Ordnance</u>. None.

<u>External Support</u>. None.

<u>NAV-202</u>   <u>2.0</u>   <u>1 EA-6B A (N)</u>

<u>Goal</u>. Maintain Pilot/ECMO 1 proficiency in instrument, radar, and navigation systems. Expose the pilot/ECMO 1 to local course rules and squadron operating procedures.

<u>Requirements</u>
1. Discuss instruments, radar, and navigation systems.
2. Prepare DD-175 and route card.
3. Introduce local course rules and standard operating procedures.
4. Perform at least one precision and one non-precision approach to a local airfield.
5. Perform one simulated single engine and one no flap/no slat approach to landing.

<u>Performance Standards</u>. IAW NATOPS, local course rules, and local SOP.

Crew. Pilot/ECMO 1.

Prerequisites. SEP-200 and SNAV-201.

Ordnance. None.

External Support. Special Use Airspace.

NAV-203   2.0   R 1 EA-6B A (N)

Goal. Maintain Pilot/ECMO 1 proficiency in radar navigation and radar system integration.

Requirements
1. Discuss radar navigation and other radar techniques.
2. Introduce use of the radar as the primary navigation reference on a suitable route.
3. Introduce use of the radar for weather avoidance if applicable.

Performance Standards
1. Recognize terrain features, cultural returns, and weather if applicable.
2. Successfully navigate using at least three radar significant points.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

Ordnance. None.

External Support. Approved MTR.

NAV-204   2.0   R 1 EA-6B A (NS)

Goal. Maintain Pilot/ECMO 1 proficiency in visual low-level navigation.

Requirements
1. Discuss low altitude visual navigation and tactics.
2. Prepare MTR strip chart with route card.
3. Performed on a suitable MTR no lower than 500 feet AGL.
4. Introduce G-warm and FOD check prior to route entry.
5. Introduce low-level navigation using timing and visual references over at least three legs of the MTR.
6. Introduce comfort level, terminate, and climb to cope.
7. Introduce tactical maneuver in the low-level environment.

Performance Standards
1. Current chummed chart with correct route card.
2. Navigate within route structure.
3. Recognize timing errors and apply proper corrections.
4. Demonstrate safe, standard low-level navigation procedures.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

Ordnance. None.

External Support. Approved MTR.

SFAM-205   1.0   1 2F143 S

Goal. Introduce the Pilot and ECMO 1 to the flight
characteristics and maneuvering capabilities of the EA-6B.

Requirements
1. Discuss EA-6B flight characteristics, maneuvering capabilities,
   and FAM 205/206 flight maneuvers.
2. Introduce the following IAW NATOPS and MAWTS-1 EA-6B
   courseware:
   a. Acceleration Demonstrations at 1 G and < 1 G.
   b. 1 G Approach-to-Stall and Recovery.
   c. 2 G Approach-to-Accelerated Stall and Recovery.
   d. Rolling G / Stab Aug Demo.
   e. Break and Hard Turns at 10,000 ft. MSL.
   f. Nose High Unusual Attitude and Recovery.
   g. Break and Hard Turns at 20,000 ft. MSL.
   h. Nose Low Unusual Attitude and Recovery.
   i. Dynamic Zoom / Transient Wing Drop.
   j. Slice Turn.
   k. Confidence Maneuvers:
        - Flaperon Roll.
        - Wingover.
        - Barrel Roll.
   l. Overhead Maneuvers:
        - Loop.
        - 1/2 Cuban Eight.
        - Immelmann.
        - Split S.

3. Introduce departures/out-of-control flight/spins. ECMOs shall
   fly the simulator for three departures/out-of-control/spins
   maneuvers.

Performance Standards. Properly perform all maneuvers IAW NATOPS
and applicable MAWTS-1 EA-6B courseware.

Crew. Pilot/ECMO 1.

Prerequisites. None.

Ordnance. None.

External Support. None.

FAM-206   1.5   R 1 EA-6B A (NS)

Goal. Introduce/review maneuvers designed to familiarize the
Pilot/ECMO 1 with flight characteristics and maneuvering
capabilities of the EA-6B.

Requirements. Asterisked items are optional to complete the
event. Overhead maneuvers are not required if flown at night.
1. Discuss EA-6B flight characteristics, maneuvering capabilities,
   and FAM 205/206 flight maneuvers.
2. Introduce the following IAW NATOPS and MAWTS-1 EA-6B
   courseware:
   a. Acceleration Demonstrations at 1 G and < 1 G.

    b. 1 G Approach-to-Stall and Recovery.
    c. 2 G Approach-to-Accelerated Stall and Recovery.
    d. * Rolling G/Stab Aug Demo.
    e. Break and Hard Turns at 10,000 ft. MSL.
    f. Nose High Unusual Attitude and Recovery.
    g. Break and Hard Turns at 20,000 ft. MSL.
    h. Nose Low Unusual Attitude and Recovery.
    i. * Dynamic Zoom/Transient Wing Drop.
    j. Slice Turn.
    k. Confidence Maneuvers:
       - Flaperon Roll.
       - Wingover.
       - Barrel Roll.
    l. Overhead Maneuvers:
       - * Loop.
       - * 1/2 Cuban Eight.
       - * Immelmann.
       - Split S.

    Performance Standards. Perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B courseware.

    Crew. Pilot/ECMO 1.

    Prerequisites. NAV-202 and SFAM-205.

    Ordnance. None.

    External Support. Special Use Airspace.

3. Formation (FORM)

   a. Purpose. Develop proficiency for pilot and ECMO 1 in section formation skills.

   b. General. Emphasize crew coordination, flight leadership, and safe formation procedures. The Section Lead evaluates all other aircrew under instruction.

   c. Crew Requirements. Training codes apply only to pilot and ECMO 1. Other crew positions may be manned and conduct other training as required.

   d. Ground/Academic Training. Per NATOPS and local SOP. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

   e. Flight and Simulator Event Training (3 flights, 6.0 hours)

FORM-210   2.0   2 EA-6B A (N)

    Goal. Maintain proficiency in basic section procedures and maneuvers.

    Requirements
    1. Discuss formation terms, visual signals, and definitions.

    2. Introduce/review the following per NATOPS and MAWTS-1 EA-6B courseware:
       a. Interval or section takeoff and rendezvous.

      b. Parade, Cruise, Fighter Wing, Deployed Echelon, Combat
         Spread.
      c. Lead changes.
      d. 1 NATOPS TACAN rendezvous for each aircraft.
      e. 2 NATOPS Break-up and rendezvous for each aircraft - one
         left, one right.
      f. Under Run.
      g. Section approach to low approach/touch and go.
      h. Section approach to section waveoff.

Performance Standards
1. Know formation terms, hand signals, and definitions.
2. Perform all maneuvers per NATOPS and applicable MAWTS-1 EA-6B
courseware.

Crew. Pilot/ECMO 1.

Prerequisites. NAV-202.

Ordnance. None.

External Support. Special Use Airspace.

FORM-211   2.0   2 EA-6B A (N)

Goal. Maintain proficiency in section tactical navigation,
tactical turns, and mutual support.

Requirements
1. Discuss standard tactical formations, maneuvering, and
    tactics.
2. Introduce/review the following per NATOPS and MAWTS-1 EA-6B
    courseware.
3. Interval or section takeoff and rendezvous.
4. Section combat checks, G warm-up, and FOD check.
5. Called and uncalled tactical turns in combat spread above 5000
    feet AGL.
    a. NAV turn into/away.
    b. TAC turn into/away.
    c. Shackle turn.
    d. Cross turn.
    e. In-place turn into/away.
6. Lead change and repeat combat spread tactical turns.
7. Fighter Wing and Deployed Echelon maneuvering above 5000 feet
    AGL.
8. Lead change and repeat Fighter Wing and Deployed Echelon
    maneuvering.
9. Perform at least one NATOPS/unit SOP section approach/missed
    approach procedure.
10. Unit SOP section landing recommended.

Performance Standards
1. Know standard tactical formations, maneuvering, and tactics.
2. Perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B
    courseware.

Crew. Pilot/ECMO 1.

Prerequisites. FORM-210.

Ordnance. None.

External Support. Special Use Airspace.

FORM-212   2.0   R 2 EA-6B A (NS)

Goal. Maintain proficiency in section tactical navigation,
tactical turns, and mutual support no lower than 500 feet AGL
(1000 feet AGL at night).

Requirements
1. Discuss standard tactical formations, maneuvering, and tactics
   at low altitude.
2. Introduce/review the following per NATOPS and MAWTS-1 EA-6B
   courseware. A pilot's initial FORM-212 shall be flown as wing
   only. During follow-on flights, lead may be exchanged during
   the low altitude portion:
   a. Section takeoff or interval takeoff and rendezvous.
   b. Section combat checks, G warm-up, and FOD check.
   c. Section low altitude tactical navigation, tactical
      maneuvering, and mutual support.
   d. Combat spread, fighter wing, and deployed echelon.
   e. Perform at least one NATOPS/unit SOP section approach/missed
      approach procedure.
   f. Unit SOP section landing recommended.

Performance Standards
1. Know standard low altitude tactical formations, maneuvering,
   and tactics.
2. Perform all maneuvers IAW NATOPS and applicable MAWTS-1 EA-6B
   courseware.

Crew. Pilot/ECMO 1.

Prerequisites. FORM-211.

Ordnance. None.

External Support. Approved MTR.

4. Night Systems (NS)

    a. Purpose. To qualify aircrew in the use of Night Vision Devices (NVDs) in
the EA-6B aircraft.

    b. General. NS training sorties introduce and familiarize EA-6B aircrew
with capabilities and limitations of NVDs in the aircraft. The designated NSI
evaluates all other aircrew under instruction.

        (1) A designated NSI pilot or ECMO 1 shall be crewed with non-NS
qualified front seat aircrew.

        (2) In formation, if any of the front seat aircrew are not NS qualified,
a Division/Section Lead NSI pilot is required in the lead aircraft.

        (3) Only the pilot and ECMO 1 are required to be NSQ for all NS or NS
optional events. Non-NSQ EA-6B aircrew who complete the prescribed NVD
ground training may wear NVDs in the helmet-mounted mode in either ECMO 2 or ECMO
3 positions during any night sortie.

(4) Upon completion of the NS-220, NS-221, NS-222, and NS-223 under the supervision of a designated NSI, aircrew may be issued a Night Systems Qualified (NSQ) letter. If aircrew lose proficiency in all NS events, the NS qualification is lost and may be regained by completing NS-220 with an NSI.

(5) If all front seat aircrew in a flight are NSQ, an NSI is not required and any night or night optional event in the T&R can be flown with the aid of NVDs.

(6) Comply with the current NAVAIR altitude restriction of no lower than 1000 feet AGL.

c. <u>Crew Requirements</u>. The NS-221 shall be flown only in the front seat. ECMOs may fly NS-220, NS-222, and NS-223 in any seat. Other crew positions may be manned as required.

d. <u>Ground/Academic Training</u>. Night Imaging and Threat Evaluation (NITE) lab syllabus and applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. <u>Flight and Simulator Event Training (4 flights, 8.0 hours)</u>

<u>NS-220</u>   2.0   R 1 EA-6B A NS

<u>Goal</u>. Introduce high altitude (5000' AGL and above) flight with NVDs in the EA-6B. Practice all NVD principles and concepts.

<u>Requirements</u>
1. Discuss NVD use in the EA-6B.
2. Introduce NVDs to prospective NSQ pilot/ECMO 1.
3. Introduce in-flight NVD donning/doffing/stowing procedures.
4. Demonstrate limited NVD Field-of-View (FOV) and practice NVD scan pattern with instrument crosschecks.
5. Demonstrate and practice maneuvering appropriate to EA tracks with consideration given to NVD capabilities and limitations. Prospective NSQ aircrew shall practice hard turns and scan techniques.
6. Practice removal and storage of NVDs during both normal operations and one simulated emergency.
7. Discuss recognition of NVD malfunctions.
8. Practice crew coordination procedures while on NVDs.

<u>Performance Standards</u>. Perform all tasks and maneuvers per MAWTS-1 Fixed Wing NVD Manual and applicable MAWTS-1 EA-6B courseware.

<u>Crew</u>. Pilot/ECMO 1 NSI and pilot/ECMO 1/2/3 under instruction.

<u>Prerequisites</u>. NAV-202.

<u>Ordnance</u>. None.

<u>External Support</u>.   Special Use Airspace.

<u>NS-221</u>   2.0   1 EA-6B A NS

<u>Goal</u>. Introduce/review use of NVDs in a low altitude, tactical scenario.

<u>Requirements</u>
1. Discuss NVD use in low altitude navigation and tactics.

2. Prepare MTR strip chart with route card. Use SLAP for light
   level planning.
3. Perform on a suitable MTR no lower than 500 feet AGL.
4. Introduce G-warm and FOD check prior to route entry.
5. Introduce low-level navigation using timing and visual
   references over at least three legs of the MTR.
6. Introduce comfort level, terminate, and climb to cope.
7. Introduce tactical maneuver in the low-level environment.
8. Introduce low altitude tactical mission tasking.

Performance Standards
1. Current chummed chart with correct route card.
2. Navigate within route structure.
3. Recognize timing errors and apply proper corrections.
4. Demonstrate safe, standard low-level navigation procedures.
5. Meet pre-briefed TOT/JOT/HARM launch time within +/- 10
   seconds.

Crew. Pilot/ECMO 1 NSI and pilot/ECMO 1 under instruction.

Prerequisite. NAV-204 and NS-220.

Ordnance. None.

External Support. Approved MTR.

NS-222   2.0   2 EA-6B A NS

Goal. Introduce formation flying with the aid of NVDs.

Requirements.
1. Discuss NVD use in formation flight.
2. Introduce goggle admin formation(s) enroute and in the working
   area.
3. Introduce goggle tactical formations above 5,000' AGL.
4. Introduce tactical section maneuvering per MAWTS-1 courseware
   and NS Guide above 5000' AGL.
   a. Section or interval takeoff and rendezvous.
   b. Parade, Cruise, Fighter Wing, Deployed Echelon, Defensive
      Combat Spread.
   c. Lead Changes.
   d. 1 NATOPS TACAN rendezvous for each aircraft.
   e. 2 NATOPS Break-up and rendezvous for each aircraft - one
      left, one right.
   f. Under Run
   g. Section combat checks, G warm-up, and FOD check.
   h. Called tactical turns in defensive combat spread above 5000
      feet AGL.
         - NAV turn into/away.
         - TAC turn into/away.
         - Shackle turn.
         - In-place turn into/away.
   i. Lead change and repeat defensive combat spread tactical
      turns.
   j. Fighter Wing and Deployed Echelon maneuvering above 5000
      feet AGL.
   k. Lead change and repeat Fighter Wing and Deployed Echelon
      maneuvering.
5. Introduce various combinations of external light options and
   range cues.

Performance Standards
1. Maintains sight of lead.
2. Conducts safe rendezvous.
3. Performs proper tactical section maneuvering.

Crew. Pilot/ECMO 1 NSI and Pilot/ECMO 1/2/3 under instruction.

Prerequisite. NS-221. FORM-211 for Pilot and ECMO 1 only.

Ordnance. None.

External Support. Special Use Airspace.

NS-223   2.0   2 EA-6B A NS

Goal. Introduce low altitude formation flying with the aid of NVDs. This is the Pilot/ECMO NS qualification sortie.

Requirements
1. Discuss NVD use in low altitude formation flight and
   navigation.
2. Review goggle admin formation(s) enroute and in the working
   area.
3. Introduce goggle tactical formations NLT 500' AGL.
4. Conduct tactical section maneuvering at low altitude.
   a. Fighter Wing, Deployed Echelon, Defensive Combat Spread.
   b. Section combat checks, G warm-up, and FOD check.
   c. Called tactical turns in defensive combat spread.
        - NAV turn into/away.
        - TAC turn into/away.
        - Shackle turn.
        - In-place turn into/away.
5. Review external light options and range cues.

Performance Standards
1. Maintains sight of lead.
2. Properly performs tactical section maneuvering.

Crew. Pilot/ECMO 1 NSI and Pilot/ECMO 1/2/3 under instruction.

Prerequisite. NS-222. FORM-212 for pilot and ECMO 1 only.

Ordnance. None.

External Support. Special Use Airspace. Approved MTR.

5. Aerial Refueling

    a. Purpose. To introduce the pilot and ECMO 1 to aerial refueling
procedures.

    b. General. Any aerial refueling aircraft may be used. The proficient
pilot or ECMO 1 shall evaluate the other front-seat aircrew under instruction.

    c. Crew Requirements. Training codes apply only to pilot and ECMO 1.
Other crew positions may be manned as required.

    d. Ground/Academic Training. Applicable academic courseware as outlined in
the EA-6B chapter of the MAWTS-1 course catalog.

    e. Pilot/ECMO Flight Training (2.0 Flights, 2.0 Hours)

AR-230   1.0   R 1 EA-6B A

                Goal. Introduce/practice the techniques/procedures for high
                altitude day tanking.

                Requirements. May be flown in conjunction with any other
                scheduled mission.
                1. Discuss air refueling in the EA-6B.
                2. Complete at least 4 plugs (wet or dry) for initial events.
                3. Complete at least 1 plug to maintain/regain proficiency.

                Performance Standards
                1. Proper communications procedures.
                2. Proper tanker rendezvous.
                3. Proper aerial refueling procedures/techniques.
                4. Proper departure from tanker.

                Crew. Pilot/ECMO 1.

                Prerequisites. NAV-202.

                Ordnance. None.

                External Support. Aerial refueling platform and Special Use
                Airspace.

AR-231   1.0   R 1 EA-6B A N

                Goal. Introduce/practice the techniques/procedures for high
                altitude night tanking.

                Requirements. May be flown in conjunction with any other
                scheduled mission.
                1. Discuss night air refueling considerations.
                2. Complete 4 plugs (wet or dry) for initial events.
                3. Complete 1 plug to maintain/regain proficiency.

                Performance Standards
                1. Proper communications procedures.
                2. Proper tanker rendezvous.
                3. Proper aerial refueling procedures/techniques.
                4. Proper departure from tanker.

                Crew. Pilot/ECMO 1.

                Prerequisites. AR-230.

                Ordnance. None.

                External Support. Aerial refueling platform and Special Use
                Airspace.

6. Electronic Warfare Support

    a. Purpose. To introduce/review ES equipment, tactics, techniques, and
procedures.

  b. <u>General</u>. This stage is designed to increase the signal recognition and identification proficiency in a dense electromagnetic environment. Flight events should be flown against an EW range with real world signals. To the greatest extent possible, these events should include an S-2 intelligence scenario, brief, and debrief and TERPES brief and debrief. The Mission Commander shall evaluate all aircrew under instruction.

  c. <u>Crew Requirements</u>. As described in each event description.

  d. <u>Ground/Academic Training</u>. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

  e. <u>Flight and Simulator Event Training (3 flights, 3.5 hours/3 simulators, 5.0 hours)</u>

<u>SES-240</u>   2.0   R 1 15E22C S

  <u>Goal</u>. Maintain proficiency in EA-6B OBS equipment and software.

  <u>Requirements</u>
  1. Discuss OBS equipment, capabilities, and limitations.
  2. Review OBS software basics.

  <u>Performance Standards</u>. Demonstrate proper knowledge of OBS.

  <u>Crew</u>. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

  <u>Prerequisites</u>. None.

  <u>Ordnance</u>. None.

  <u>External Support</u>. None.

<u>SES-241</u>   2.0   R 1 15E22C S

  <u>Goal</u>. Increase signal recognition capabilities in a dense electromagnetic environment.

  <u>Requirements</u>.
  1. Discuss signal recognition in a dense EM environment.
  2. Build a TEAMS mission.
  3. Prioritize, detect, identify, localize, and record signals of
     interest in a dense signal environment.
  4. Coordinate navigation track for ES optimization.
  5. Properly initialize the OBS.
  6. Maintain ES logs, focusing on SOI.
  7. Correctly reference ETIRMS for SOI characteristics.
  8. Discuss coordination with National Assets.
  9. Review ambiguity resolution.

  <u>Performance Standards</u>. Accurately identify multiple signals by band in a dense electromagnetic environment.

  <u>Crew</u>. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

  <u>Prerequisites</u>. None.

  <u>Ordnance</u>. None.

  <u>External Support</u>. None.

ES-242   2.0   R 1 EA-6B A (N)

Goal. Maintain proficiency in EA-6B OBS equipment and software.

Requirements
1. Discuss OBS equipment, capabilities, and limitations.
2. Review OBS software basics.

Performance Standards. Demonstrate proper knowledge of OBS.

Crew. ECMO 2/3.

Prerequisites. SES-240 and SES-241.

Ordnance. None.

External Support. None.

TES-243   1.0   R 1 MATT/IDM S/A (N)

Goal. Introduce/Review MATT/IDM procedures.

Requirements
1. Discuss MATT/IDM equipment, capabilities, and limitations.
2. Initialize system.
3. Create filters based on SOI.
4. Manage real-world information if available.

Performance Standards. Demonstrate proper knowledge of MATT/IDM.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

Prerequisites. None.

Ordnance. None.

External Support. None.

ES-244   1.0   R 1 EA-6B A (N)

Goal. Introduce/review HARM as a sensor.

Requirements
1. Discuss HARM as a sensor.
2. Build TEAMS mission.
3. Introduce HARM ABL mode against real world signals.
4. Localize signal based on HARM information.
5. Correlate HARM and OBS information.

Performance Standards. Properly localize signals within 5 nm.

Crew. ECMO 2/3.

Prerequisites. None.

Ordnance. CATM-88.

External Support. EW Range.

ES-245   0.5   R 1 EA-6B A (N)

       Goal. Introduce/review the AR-3000 scanner.

       Requirements
       1. Discuss AR-3000 limits and capabilities.
       2. Create scan list of given frequencies.
       3. Scan for real world signals.
       4. Keep log of signal activity.
       5. If available, record real world signals.
       6. Pass logs and recordings to appropriate outside agency via
          appropriate means.

       Performance Standards. Properly creates scan list, keeps signal
log, and passes information as appropriate.

       Crew. ECMO 2/3.

       Prerequisites. None.

       Ordnance. None.

       External Support. EW Range.

7. Electronic Attack

    a. Purpose. To introduce/review EA equipment, tactics, techniques, and procedures.

    b. General. This stage is designed to increase weapons systems proficiency in electronic attack. Flight events should be flown against an EW range with real world signals. Where available, the EW Range Operator shall provide in-flight and/or post-flight feedback and measures of effectiveness to the mission aircrew. To the greatest extent possible, these events should include an S-2 intelligence scenario, brief, and debrief and TERPES brief and debrief. The Mission Commander shall evaluate all aircrew under instruction.

    c. Crew Requirements. As described in each event description.

    d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

    e. Flight and Simulator Event Training (4 flights, 5.0 hours/5 simulators, 8.0 hours)

SEA-250   2.0   R 1 15E22C S

       Goal. Review TJS operations versus radar targets.

       Requirements
       1. Discuss TJS equipment, limits, and capabilities.
       2. Discuss radar characteristics, jamming fundamentals, advanced
          jamming techniques, and degraded operations.
       3. Build a TEAMS mission.
       4. Review preemptive, alarm, display assignments versus radar
          targets in all bands.

Performance Standards
1. Successfully builds and loads TEAMS mission.
2. Properly makes preemptive, alarm, and display assignments to cover radar targets.
3. Properly recognizes and reacts to degraded systems.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

Prerequisites. None.

Ordnance. None.

External Support. None.

SEA-251   2.0   R 1 15E22C S

Goal. Introduce/review TJS operations versus communications and other targets.

Requirements
1. Discuss communication systems characteristics, communications jamming fundamentals, advanced jamming techniques, and degraded operations.
2. Discuss TJS limits and capabilities versus communications.
3. Build a TEAMS mission.
4. Introduce/Review preemptive and display assignments versus communications and other systems.

Performance Standards
1. Successfully builds and loads TEAMS mission.
2. Properly makes preemptive and display assignments to cover communications and other targets.
3. Properly recognizes and reacts to degraded systems.

Crew. ECMO 2/3. Pilots shall complete in ECMO 2/3 position.

Prerequisites. None.

Ordnance. None.

External Support. None.

EA-252   2.0   R 1 EA-6B A (N)

Goal. Review TJS basic operations versus radar, communications, and other targets.

Requirements
1. Discuss TJS limits and capabilities.
2. Discuss radar and communication characteristics, jamming fundamentals, and degraded operations.
3. Build a TEAMS mission.
4. Review preemptive, alarm, display assignments versus radars, communications, and other targets.

Performance Standards
1. Successfully builds and loads TEAMS mission.
2. Properly makes preemptive and display assignments to cover communications targets.
3. Properly recognizes and reacts to degraded systems.

Crew. ECMO 2/3.

Prerequisites. SEA-250 and SEA-251.

Ordnance. None.

External Support. EW Range.

TEA-253 2.0   R 1 USQ-113 S

Goal. Introduce USQ-113 equipment, tactics, techniques, and procedures.

Requirements
1. Discuss USQ-113 equipment, capabilities, and limitations against communications and other targets.
2. Build configuration file on ETIRMS.
3. Transfer configuration file to USQ-113 system.
4. Introduce configuration file loading and mission setup.
5. Introduce all USQ-113 menus and functions.

Performance Standards. Successfully load configuration file and operate all menus and functions.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. None.

EA-254 1.0   R 1 EA-6B A (N)

Goal. Review USQ-113 equipment, tactics, techniques, and procedures.

Requirements
1. Discuss USQ-113 equipment, capabilities, and limitations against communications and other targets.
2. Build configuration file on ETIRMS.
3. Transfer configuration file to USQ-113 laptop and IOCP.
4. Review configuration file loading and mission setup
5. Review all USQ-113 menus and functions.

Performance Standards
1. Successfully load configuration file and operate all menus and functions.
2. Successfully jam real world signals.

Crew. ECMO 1/2/3.

Prerequisites. TEA-253.

Ordnance. None.

External Support. EW Range.

SEA-255   1.0   R 1 2F143 S

Goal. Review Pilot and ECMO 1 HARM employment tactics, techniques, and procedures.

Requirements. Shall be completed using integrated simulator with SEA-256.
1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Review proper crew coordination with respect to pre- and post-launch responsibilities.
5. Complete HARM shot card.
6. Perform HARM ABL procedures.
7. Successfully employ missile with various system malfunctions.
8. Review abort codes.
9. Introduce local hung ordnance approach procedures.

Performance Standards
1. Properly launch HARM using the ALQ-99, HCP, and CDNU.
2. HARM launch within 10 seconds of planned launch time and within 3 nm of planned launch point.
3. HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. Pilot/ECMO 1.

Prerequisites. None.

Ordnance. None.

External Support. None.

SEA-256   1.0   R 1 15E22C S

Goal. Review ECMO 2 and 3 HARM employment tactics, techniques, and procedures.

Requirements. Shall be completed using integrated simulators with SEA-255.
1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Develop target packages using Target Hook, Emitter Hook, library, OP Create, and ELINT modifications.
5. Review crew coordination with respect to pre- and post-launch responsibilities.
6. Complete HARM shot card.
7. Perform HARM ABL procedures.
8. Successfully employ missile with various system malfunctions.
9. Review abort codes.

Performance Standards
1. Properly create DAs as per requirements.
2. HARM launch within 10 seconds of planned launch time.
3. HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. ECMO 2/3.

Prerequisites. None.

Ordnance. None.

External Support. None.

EA-257   1.0   R 1 EA-6B A (N)

Goal. Review HARM employment procedures for Pilot and ECMO 1.

Requirements
1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Review proper crew coordination with respect to pre- and post-
   launch responsibilities.
5. Complete HARM shot card.
6. Perform HARM ABL procedures.
7. Successfully employ missile with various system malfunctions.
8. Review abort codes.
9. Discuss or introduce local hung ordnance approach procedures.

Performance Standards
1. Properly launch simulated HARM using the ALQ-99, HCP, and CDNU.
2. Simulated HARM launch within 10 seconds of planned launch time
   and within 3 nm of planned launch point.
3. Simulated HARM impact on target within 10 seconds of planned
   impact time.
4. Properly complete accurate post-launch HARM shot card.

Crew. Pilot/ECMO 1.

Prerequisites. SEA-255.

Ordnance. CATM-88.

External Support. EW Range.

EA-258   1.0   R 1 EA-6B A (N)

Goal. Review HARM employment procedures for ECMO 2 and 3.

Requirements.
1. Discuss HARM employment, terminology, and striker area tactics.
2. Build TEAMS mission to include route and timing requirements.
3. Review multiple HARM launches utilizing all modes (PB, RK, RU).
4. Develop target packages using Target Hook, Emitter Hook,
   library, OP Create, and ELINT modifications.
5. Review crew coordination with respect to pre- and post-launch
   responsibilities.
6. Complete HARM shot card.
7. Perform HARM ABL procedures.
8. Successfully employ missile with various system malfunctions.
9. Review abort codes.

Performance Standards.
1. Properly create DAs as per requirements.
2. Simulated HARM launch within 10 seconds of planned launch time.

3. Simulated HARM impact on target within 10 seconds of planned impact time.
4. Properly complete accurate post-launch HARM shot card.

   Crew. ECMO 2/3.

   Prerequisites. SEA-256.

   Ordnance. CATM-88.

   External Support. None.

8. Threat Reaction (TRXN)

   a. Purpose. Introduce EA-6B threat reaction tactics for Surface-To-Air missiles (SAM), Anti-Aircraft Artillery (AAA), and Air-To-Air missiles (AAM).

   b. General. Emphasis should be placed on crew coordination, aircraft performance characteristics, and threat reaction skills. The DEFTACI shall evaluate aircrew under instruction.

   c. Crew Requirements. A MAWTS-1 certified and squadron designated DEFTACI pilot or ECMO 1 shall be in the front seat for the initial STRXN-260 and TRXN-261 events only. STRXN-260 shall be flown in the front seat simulator with a DEFTACI in the simulator or at the console. ECMOs may fly the TRXN-261 in any ECMO seat.

   d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

   e. Flight and Simulator Event Training (1 flight, 1.5 hours/1 simulator, 1.0 hour)

STRXN-260   1.0   1 2F143 S

          Goal. Introduce EA-6B threat reaction for SAM, AAA, and AAM.

          Requirements. No lower than 500 ft AGL.
          1. Discuss EA-6B threat reaction to SAM, AAA, and AAM.
          2. Introduce the following IAW MAWTS-1 EA-6B courseware:
             a. Hard and Break turns NLT 500' AGL.
             b. Dive Recovery Rules:
                  - 50% Rule.
                  - Dive Recovery Rules.
                  - Small Descent ROT.
                  - 10 degree Rule.
             c. SAM threat reaction maneuvers.
             d. AAA threat reaction maneuvers.
             e. AAM threat reaction maneuvers.
          3. Introduce threat reaction communications and expendables use.

          Performance Standards. Perform all maneuvers per applicable MAWTS-1 EA-6B courseware.

          Crew. Pilot/ECMO 1 and DEFTACI if initial only (at console or in simulator).

          Prerequisites. FAM-206.

          Ordnance. Simulate 40 Chaff/20 Flares.

     External Support. None.

TRXN-261 1.5   R 1 EA-6B A (NS)

     Goal. Introduce EA-6B threat reaction for SAM, AAA, and AAM.

     Requirements. No lower than 500 ft AGL.
     1. Discuss EA-6B threat reaction to SAM, AAA, and AAM.
     2. Introduce the following IAW MAWTS-1 EA-6B courseware:
      a. Hard and Break turns NLT 500' AGL.
      b. Dive Recovery Rules:
       - 50% Rule.
       - Dive Recovery Rules.
       - Small Descent ROT.
       - 10 degree Rule.
      c. SAM threat reaction maneuvers.
      d. AAA threat reaction maneuvers.
      e. AAM threat reaction maneuvers.
     3. Introduce threat reaction communications and expendables use.

     Performance Standards. Perform all maneuvers per applicable
MAWTS-1 EA-6B courseware.

     Crew. Pilot/ECMO 1/2/3 and DEFTACI pilot or ECMO 1 if initial
only.

     Prerequisites. STRXN-260.

     Ordnance. 40 Chaff/20 Flares.

     External Support. Special Use Airspace. When able, use smokey
SAMs and feedback-capable emitters to measure radar break-lock and
expendable effectiveness.

133. CORE SKILL ADVANCED TRAINING

1. General

  a. This phase contains advanced core skill training. This phase should move
an individual from proficiency in basic core skills to proficiency in more
advanced/complex core skills. Crews proficient in this phase of training should
be capable of planning/leading/directing flights of numerous aircraft in a
contingency operation.

  b. Core Skill Advanced Stages

   (1) Offensive Air Support.

   (2) Task Force Support.

   (3) Defensive Tactics.

2. Offensive Air Support (OAS)

  a. Purpose. Develop proficiency for aircrew in electronic warfare in
support of OAS missions.

   b. <u>General</u>

        (1) Emphasize mission analysis, EW planning, crew coordination, and weapon systems integration in support of offensive air support missions. The Mission Commander shall evaluate all other aircrew in the event.

        (2) These missions introduce electronic warfare in support of offensive air support. The intent is that the Mission Commander and aircrew conduct a thorough mission analysis based on a real-world, exercise, or simulated scenario. The Mission Commander and aircrew determine the EW support required for that mission and use the required weapon systems. All aircrew log the 300-level code for the appropriate EW in support of OAS event. Additionally, all aircrew log 200-level ES and EA codes if the applicable weapon systems were employed. Not all event requirements need to be met for the 200-level ES or EA event to be logged if used in a 300-level OAS mission. For example, if the aircrew employs the OBS, TJS, HARM, and USQ-113 in support of an OAS-300 simulator, they would also log the appropriate ES and EA 200-level codes for those weapon systems. 200-level codes will not be chained automatically by 300-level OAS codes, but must be logged individually on the NAVFLIR. Mission Commanders are responsible for ensuring all appropriate T&R codes are logged on the NAVFLIR.

   c. <u>Crew Requirements</u>. A designated Mission Commander is required for all OAS events. For simulator events, the Mission Commander may be in the simulator or at the console. For flight events, a Mission Commander must be in the aircraft. For formation events, a Mission Commander must be in the formation, not necessarily in each aircraft. OAS training codes apply to all aircrew regardless of crew position.

   d. <u>Ground/Academic Training</u>. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

   e. <u>Flight and Simulator Event Training (7 flights, 14.0 hours/3 simulators, 6.0 hours)</u>

<u>SOAS-300</u>   2.0   1 2F143 / 15E22C S

              <u>Goal</u>. Develop aircrew proficiency in electronic warfare in support of air interdiction.

              <u>Requirements</u>. Should be flown as integrated simulator.
              1. Discuss electronic warfare in support of air interdiction.
              2. Conduct mission analysis based on given scenario.
              3. Conduct EW targeting in support of given scenario.
              4. Build TEAMS/ETIRMS mission to include route and mission cards.
              5. Introduce proper communications procedures.
              6. Execute planned mission based on Mission Commander's guidance.
              7. React to mission developments and pop-up threats.

              <u>Performance Standards</u>
              1. Properly analyzed mission.
              2. Properly conducted EW targeting in support of mission.
              3. Properly executed planned mission.
              4. Properly reacted to mission developments and pop-up threats.

              <u>Crew</u>. Pilot/ECMO 1/2/3.

              <u>Prerequisites</u>. None.

              <u>Ordnance</u>. None.

External Support. None.

OAS-301   2.0   R 1 EA-6B A (N)

Goal. Develop aircrew proficiency in electronic warfare in
support of air interdiction.

Requirements. May be flown day or night.
1. Discuss electronic warfare in support of air interdiction.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Introduce proper communications procedures.
6. Execute planned mission based on Mission Commander's guidance.
7. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyzed mission.
2. Properly conducted EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW Range. Fixed or rotary wing strike
aircraft.

OAS-302   2.0   R 1 EA-6B A NS

Goal. Develop aircrew proficiency in electronic warfare in
support of air interdiction on NVDs.

Requirements. Must be flown at night using NVDs.
1. Discuss electronic warfare in support of air interdiction.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Introduce proper communications procedures.
6. Execute planned mission based on Mission Commander's guidance.
7. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyzed mission.
2. Properly conducted EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW Range. Fixed or rotary wing strike
aircraft.

SOAS-303   2.0   1 2F143 / 15E22C S

Goal. Practice single-ship techniques in an armed recce
environment.

Requirements. Should be flown as integrated simulator.
1. Discuss electronic warfare in support of armed recce.
2. Discuss/review HARM in support of OAS.
3. Develop scenario providing friendly and enemy ground order of
   battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS / ETIRMS mission to include route and mission
   cards.
7. Utilize both threat is the target and threat is not the target
   profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 2 attacks against the threat SAM.
6. Conducted a minimum of 2 attacks against a target not co-
located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. None.

OAS-304   2.0   R 1 EA-6B A (N)

Goal. Practice single-ship techniques in an armed recce
environment.

Requirements. May be flown day or night.
1. Discuss electronic warfare in support of armed recce.
2. Discuss/review HARM in support of OAS.
3. Develop scenario providing friendly and enemy ground order of
   battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target
   profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.

4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 1 attack against the threat SAM.
6. Conducted a minimum of 1 attack against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike aircraft.

OAS-305   2.0   R 1 EA-6B A NS

Goal. Practice single-ship techniques in an armed recce environment using NVDs.

Requirements. Must be flown at night using NVDs.
1. Discuss electronic warfare in support of armed recce.
2. Discuss/review HARM in support of OAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 1 attack against the threat SAM.
6. Conducted a minimum of 1 attack against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike aircraft.

SOAS-306   2.0   1 2F143 / 15E22C S

Goal. Practice single-ship techniques in a close air support environment.

Requirements. Should be flown as integrated simulator.
1. Discuss electronic warfare in support of CAS.
2. Discuss/review HARM in support of CAS.

3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 2 attacks against the threat SAM.
6. Conducted a minimum of 2 attacks against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. None.

OAS-307   2.0   R 1 EA-6B A (N)

Goal. Practice single-ship techniques in a close air support environment.

Requirements. May be flown day or night.
1. Discuss electronic warfare in support of CAS.
2. Discuss/review HARM in support of CAS.
3. Develop scenario providing friendly and enemy ground order of battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS/ETIRMS mission to include route and mission cards.
7. Utilize both threat is the target and threat is not the target profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 1 attack against the threat SAM.
6. Conducted a minimum of 1 attack against a target not co-located with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike
aircraft.

OAS-308   2.0   R 1 EA-6B A NS

Goal. Practice single-ship techniques in a close air support
environment.

Requirements. Must be flown at night using NVDs.
1. Discuss electronic warfare in support of CAS.
2. Discuss/review HARM in support of CAS.
3. Develop scenario providing friendly and enemy ground order of
   battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS / ETIRMS mission to include route and mission
   cards.
7. Utilize both threat is the target and threat is not the target
   profiles.
8. Introduce proper communications procedures.
9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.
5. Conducted a minimum of 1 attack against the threat SAM.
6. Conducted a minimum of 1 attack against a target not co-located
   with threat SAM.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike
aircraft.

OAS-309   2.0   2 EA-6B A (N)

Goal. Practice section tactics in support of OAS.

Requirements. May be flown day or night.
1. Discuss/review section EW tactics in support of OAS.
2. Discuss/review HARM in support of CAS.
3. Develop scenario providing friendly and enemy ground order of
   battle, SAMs/AAA, Fire Support Coordination Measures, etc.
4. Conduct mission analysis based on given scenario.
5. Conduct EW targeting in support of given scenario.
6. Build TEAMS / ETIRMS mission to include route and mission
   cards.
7. Utilize both threat is the target and threat is not the target
   profiles.
8. Introduce proper communications procedures.

9. Execute planned mission based on Mission Commander's guidance.
10. React to mission developments and pop-up threats.

Performance Standards.
1. Properly analyze mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission changes and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. FORM-210.

Ordnance. CATM-88. 40 Chaff/20 Flares.

External Support. EW Range. Fixed or rotary wing strike aircraft.

3. Task Force Support (TFS)

   a. Purpose. To practice EA-6B tactics and techniques in the task force support role.

   b. General

      (1) Emphasis should be placed on mission analysis, EW planning, crew coordination, and weapon systems integration in support of task force operations. Missions are intended to familiarize the EA-6B aircrew with tactics and techniques and may include, but are not limited to EW in support of convoy operations, direct action missions, assault support, CSAR/TRAP, Information Operations, MOUT, and counter surface fires. The Mission Commander shall evaluate all other aircrew in the event.

      (2) These missions introduce electronic warfare in support of task force operations. The intent is that the Mission Commander and aircrew conduct a thorough mission analysis based on a real-world, exercise, or simulated scenario. The Mission Commander and aircrew determine the EW support required for that mission and use the required weapon systems. All aircrew log the 300-level code for the appropriate EW in support of TFS event. Additionally, all aircrew log 200-level ES and EA codes if the applicable weapon systems were employed. Not all event requirements need to be met for the 200-level ES or EA event to be logged if used in a 300-level TFS mission. For example, if the aircrew employs the TJS and USQ-113 in support of an TFS-310 simulator, they would also log the appropriate ES and EA 200-level codes for those weapon systems. 200-level codes will not be chained automatically by 300-level TFS codes, but they must be logged individually on the NAVFLIR. Mission Commanders are responsible for ensuring all appropriate T&R codes are logged on the NAVFLIR.

   c. Crew Requirements. A designated Mission Commander is required for all TFS events. For simulator events, the Mission Commander may be in the simulator or at the console. For flight events, a Mission Commander must be in the aircraft. For formation events, a Mission Commander must be in the formation, not necessarily in each aircraft. TFS training codes apply to all aircrew regardless of crew position.

   d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

    e. Flight and Simulator Event Training (3 flights, 6.0 hours/5 simulators, 10.0 hours)

STFS-310   2.0   1 2F143 / 15E22C S/A (N)

                Goal. Develop aircrew proficiency in electronic warfare in
                support of convoy operations.

                Requirements. Should be flown as integrated simulator. May be
                flown in aircraft day or night.
                1. Discuss electronic warfare in support of convoy operations.
                2. Conduct mission analysis based on given scenario.
                3. Conduct EW targeting in support of given scenario.
                4. Build TEAMS / ETIRMS mission to include route and mission
                   cards.
                5. Prepare go/no go criteria and flex plan.
                6. Introduce proper communication procedures.
                7. Practice degraded modes of operation.
                8. Execute planned mission based on Mission Commander's guidance.
                9. React to mission developments and pop-up threats.

                Performance Standards
                1. Properly analyzed mission.
                2. Properly conduct EW targeting in support of mission.
                3. Properly executed planned mission.
                4. Properly reacted to mission developments and pop-up threats.

                Crew. Pilot/ECMO 1/2/3.

                Prerequisites. None.

                Ordnance. None.

                External Support. None.

TFS-311   2.0   1 EA-6B A (N)

                Goal. Develop aircrew proficiency in electronic warfare in
                support of convoy operations.

                Requirements. May be flown day or night.
                1. Discuss electronic warfare in support of convoy operations.
                2. Conduct mission analysis based on given scenario.
                3. Conduct EW targeting in support of given scenario.
                4. Build TEAMS/ETIRMS mission to include route and mission cards.
                5. Prepare go/no go criteria and flex plan.
                6. Introduce proper communication procedures.
                7. Practice degraded modes of operation.
                8. Execute planned mission based on Mission Commander's guidance.
                9. React to mission developments and pop-up threats.

                Performance Standards
                1. Properly analyzed mission.
                2. Properly conduct EW targeting in support of mission.
                3. Properly executed planned mission.
                4. Properly reacted to mission developments and pop-up threats.

                Crew. Pilot/ECMO 1/2/3.

                Prerequisites. None.

Ordnance. None.

External Support. EW Range, appropriate Ground Combat Elements.

TFS-312   2.0   1 EA-6B A (N)

Goal. Develop aircrew proficiency in electronic warfare in
support of direct action.

Requirements. May be flown day or night.
1. Discuss electronic warfare in support of direct action.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards.
1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW Range, appropriate Ground Combat Elements.

TFS-313   2.0   R 1 EA-6B A (N)

Goal. Develop aircrew proficiency in electronic warfare in
support of Assault Support.

Requirements. May be flown day or night.
1. Discuss electronic warfare in support of direct action.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW Range, rotary wing aircraft.

STFS-314   2.0   1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of CSAR/TRAP.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.
1. Discuss electronic warfare in support of CSAR/TRAP.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW range if in aircraft.

STFS-315   2.0   1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of Information Operations.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.
1. Discuss information operations, focusing on electronic warfare, deception, and psychological operations.
2. Conduct mission analysis based on given scenario.
3. Conduct IO targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyzed mission.
2. Properly conduct IO targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW range if in aircraft.

STFS-316   2.0   R 1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of MOUT.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.
1. Discuss EW in support of military operations in urban terrain (MOUT).
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards
1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. None.

External Support. EW range if in aircraft.

STFS-317   2.0   R 1 2F143 / 15E22C S/A (N)

Goal. Develop aircrew proficiency in electronic warfare in support of counter surface fires.

Requirements. Should be flown as integrated simulator. May be flown in aircraft day or night.
1. Discuss EW in support of counter surface fires.
2. Conduct mission analysis based on given scenario.
3. Conduct EW targeting in support of given scenario.
4. Build TEAMS/ETIRMS mission to include route and mission cards.
5. Prepare go/no-go criteria and flex plan.
6. Introduce proper communication procedures.
7. Practice degraded modes of operation.
8. Execute planned mission based on Mission Commander's guidance.
9. React to mission developments and pop-up threats.

Performance Standards.
1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

           <u>Crew</u>. Pilot/ECMO 1/2/3.

           <u>Prerequisites</u>. None.

           <u>Ordnance</u>. None.

           <u>External Support</u>. EW range and GCE if in aircraft.

4. <u>Defensive Tactics (DEFTAC)</u>

    a. <u>Purpose</u>. Introduce basic fighter maneuver counters, intercept communications, and defensive air combat maneuvering.

    b. <u>General</u>. Emphasis should be placed on crew coordination, aircraft performance characteristics, building situational awareness, and basic defensive air combat maneuvers. The DEFTACI shall evaluate aircrew under instruction.

        (1) Upon completion of DEFTAC-320, SDEFTAC-321, and DEFTAC-322 under the supervision of a designated DEFTACI, aircrew may be issued a Defensive Tactics Qualified (DEFTAC) letter. If aircrew lose proficiency in all DEFTAC events, the DEFTAC qualification is lost and may be regained by completing all "R" coded DEFTAC events with a DEFTACI.

        (2) One dissimilar aircraft is required for DEFTAC-320 and DEFTAC-322. DEFTAC-320 does not require a radar-missile/BVR capable aircraft. DEFTAC-322 requires a radar-missile capable dissimilar aircraft.

    c. <u>Crew Requirements</u>. A designated DEFTACI Pilot or ECMO 1 shall be crewed with non-qualified DEFTAC aircrew. If all aircrew in the event are DEFTAC qualified, a DEFTACI is not required. Pilots must complete all DEFTAC events in the pilot seat. ECMOs may fly all DEFTAC events in any ECMO seat.

    d. <u>Ground/Academic Training</u>. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

    e. <u>Flight and Simulator Event Training (2 flights, 3.0 hours/1 simulator, 2.0 hours)</u>

<u>DEFTAC-320</u>   <u>1.5</u>   <u>R 1 EA-6B A / 1 Dissimilar Adversary A</u>

           <u>Goal</u>. Introduce 1v1 Basic Fighter Maneuver Counters (BFMC).

           <u>Requirements</u>
           1. Discuss BFMC concepts and maneuvers.
           2. Introduce eyeball calibration and demos (Initial flight only):
              a. Bogey demo low-to-high angle-off-tail (AOT) from 20, 40, 60° and top/bottom of aircraft.
              b. Bogey demo missile and gun envelopes with pursuit demos(lead, lag, pure).
              c. Bogey demo six o'clock blind zone.
              d. Bogey demo low Yo-Yo, high Yo-Yo, and Lag Roll.
           3. Guns Weave:
              a. Run 1: Bogey comm/EA-6B non-maneuvering.
              b. Run 2: Bogey comm/EA-6B maneuvers.
              c. Run 3: Bogey no comm/EA-6B maneuvers.
           4. Perform low angle and high angle defensive counters.
           5. Perform multiple head-on starts.
              a. One-circle flow.
              b. Two-circle flow.
              c. Bogey vertical at merge.

      d. Bogey vertical at turn-in.
      e. Bogey uses highest category aircraft capable with an IR-1 or
         IR-2 WEZ.

Performance Standards
1. Knows BFMC concepts, terms, and procedures.
2. Properly recognizes and performs maneuvers.
3. Demonstrates proper crew coordination, communication, and
   expendables.

Crew. Pilot/ECMO 1/2/3. DEFTACI Pilot or ECMO1 if required.

Prerequisites. FAM-206.

Ordnance. 60 Flares. TACTS/ACMI pod should be used, if
available.

External Support. Special Use Airspace, Instrumented Range, and
dissimilar F/W adversary.

SDEFTAC-321   2.0   1 2F143 / 15E22C S

Goal. Introduce intercept control and BVR engagements,
Slide/Scram execution, and FQMD.

Requirements. Should be flown as integrated simulator. DEFTACI
makes appropriate shot calls for simulated bogey.
1. Discuss intercept communications and BVR tactics.
2. Introduce:
    a. Bogey commits against EA-6B from 30 nm (EA-6B non-
       maneuvering).
    b. Bogey at Scram range.
    c. Bogey inside Scram range but outside of E-Pole.
    d. Pop-up Threat inside E-Pole.
3. Introduce/Review dive recovery rules to no lower than 500 ft
   AGL.

Performance Standards
1. Determine proper Slide, Scram, and E-Pole ranges and
   directions.
2. Properly interpret AIC/GCI communications.
3. Properly build situational awareness with standard intercept
   communications.
4. Demonstrate proper expendables employment.

Crew. Pilot/ECMO 1/2/3. DEFTACI if required.

Prerequisites. None.

Ordnance. Simulate 40 Chaff/20 Flares.

External Support. GCI controller (if available).

DEFTAC-322   1.5   R E 1 EA-6B A / 1 Dissimilar Adversary A

Goal. Review intercept control and BVR engagements, Slide/Scram
execution, and FQMD. This is the Pilot/ECMO DEFTAC qualification
sortie.

Requirements. GCI/AEW required if available. If no radar control available, an air-intercept radar-equipped bogey may provide reverse GCI control. TACTS debrief recommended if available.
1. Discuss intercept communications and BVR tactics.
2. Introduce:
   a. Eyeball calibration.
   b. Bogey at Scram range.
   c. Bogey inside Scram range and outside of E-Pole.
   d. Pop-up Threat inside E-Pole.
   e. Transition from BVR to BFMC.
3. Review dive recovery rules to no lower than 500 ft AGL.

Performance Standards
1. Determine proper Slide, Scram, and E-Pole ranges and directions.
2. Properly interpret AIC/GCI communications.
3. Properly build situational awareness with standard intercept communications.
4. Demonstrate proper expendables employment.

Crew. Pilot/ECMO 1/2/3. DEFTACI if required.

Prerequisites. DEFTAC-320 and SDEFTAC-321.

Ordnance. 40 Chaff/20 Flares.

External Support. Special Use Airspace, GCI/AIC, Instrumented Range, and dissimilar F/W adversary.

134. CORE PLUS TRAINING

1. General

   a. This phase contains skill training a community may accomplish. Although Core Plus training events may provide valuable training opportunities, they are not measured as part of unit SORTS reporting. Skills contained in this level are associated with high risk, low probability of execution, and/or are theater specific. This phase of training allows additional unit training flexibility.

   b. Core Plus Stages. These stages are Formation, Night Systems, Aerial Refueling, Electronic Warfare, Defensive Tactics, Expeditionary Air Field Operations, and Carrier Qualifications.

2. Formation (FORM)

   a. Purpose. Develop proficiency for Pilot and ECMO 1 in EA-6B division formation skills.

   b. General. Emphasize crew coordination, flight leadership, and safe formation procedures. The Division Lead evaluates all other aircrew under instruction.

   c. Crew Requirements. Training codes apply only to Pilot and ECMO 1. Other crew positions may be manned as required.

   d. Ground/Academic Training. Per NATOPS and local SOP. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

   e. Flight and Simulator Event Training (1 flight, 2.0 hours)

FORM-400   2.0   R 3 or more EA-6B A (N)

        Goal. Maintain proficiency in basic division procedures and maneuvers.

        Requirements. May be flown day or night.
        1. Discuss division formation terms, visual signals, and definitions.
        2. Introduce/Review:
           a. Interval takeoff and rendezvous.
           b. Parade and Cruise.
           c. Lead Changes.
           d. One NATOPS TACAN rendezvous.
           e. Two NATOPS Break-up and rendezvous - one left, one right.
           f. Division recovery.

        Performance Standards.
        1. Know division formation terms, visual signals, and definitions.
        2. Perform all maneuvers per NATOPS and applicable MAWTS-1 EA-6B courseware.

        Crew. Pilot/ECMO 1.

        Prerequisites. FORM-210.

        Ordnance. None.

        External Support. Special Use Airspace.

3.   Low Altitude Aerial Refueling (AR)

    a. Purpose. To introduce/review the techniques and procedures required for low altitude aerial refueling.

    b. General. Any refueling aircraft may be used for this stage.

    c. Ground Training. Per NATOPS and local SOP. Additionally, complete applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

    d. Pilot/ECMO Flight Training (Pilot: 1 Flight, 1.0 Hour)

AR-410   1.0   R 1 EA-6B A (N)

        Goal. Introduce/review the techniques and procedures required for low altitude aerial refueling.

        Requirements. May be flown day or night below 5000' AGL. Other requirements are the same as AR-230 or AR-231.

        Performance Standards. Same as AR-230 or AR-231.

        Crew. Pilot/ECMO 1.

        Prerequisites. AR-230.

        Ordnance. None.

        External Support. Special Use Airspace and 1 KC-130 or other suitable tanker.

4. Electronic Warfare (EW)

    a. Purpose. Develop proficiency for aircrew in electronic warfare in
support of various missions.

    b. General

        (1) Emphasis should be placed on mission analysis, EW targeting and
planning, crew coordination, and weapon systems integration in support of various
missions. The Mission Commander shall evaluate all other aircrew in the event.

        (2) These missions introduce electronic warfare in support of various
missions to include but are not limited to ALE-43 bulk chaff, electronic
protection training, expeditionary strike group support, national asset ES
integration, large force exercises, and real world contingencies. The intent is
that the Mission Commander and aircrew conduct a thorough mission analysis based
on a real-world, exercise, or simulated scenario. The Mission Commander and
aircrew determine the EW support required for that mission and use the required
weapon systems. All aircrew log the 300-level code for the appropriate EW event.
Additionally, all aircrew log 200-level ES and EA codes if the applicable weapon
systems were employed. Not all event requirements need to be met for the 200-
level ES or EA event to be logged if used in a 400-level EW mission. For
example, if the aircrew employs the TJS and USQ-113 in support of an EW-421
flight, they would also log the appropriate ES and EA 200-level codes for those
weapon systems. 200-level codes will not be chained automatically by 400-level
EW codes; they must be logged individually on the NAVFLIR. Mission Commanders
are responsible for ensuring all appropriate T&R codes are logged on the NAVFLIR.

    c. Crew Requirements. A designated Mission Commander is required for all
EW events. For simulator events, the Mission Commander may be in the simulator
or at the console. For flight events, a Mission Commander must be in the
aircraft. For formation events, a Mission Commander must be in the formation.
EW stage training codes apply to all aircrew regardless of crew position.

    d. Ground/Academic Training. Applicable academic courseware as outlined in
the EA-6B chapter of the MAWTS-1 course catalog.

    e. Flight and Simulator Event Training (4 flights, 8.0 hours/1 simulator,
2.0 hours)

EW-420   2.0   R 1 EA-6B A (N)

                Goal. Introduce/practice the aircrew requirements for ALE-43 bulk
                chaff operations.

                Requirements. May be flown day or night.
                1. Discuss ALE-43 pod operation and bulk chaff tactics.
                2. Prepare EA game plan to optimize chaff corridor.
                3. Program chaff panel based on threat environment.
                4. Dispense or simulate chaff employment.
                5. Execute planned mission based on Mission Commander's guidance.
                6. React to mission developments and pop-up threats.

                Performance Standards
                1. Properly determine bulk chaff drop track and altitudes.
                2. Properly employ chaff utilizing correct cutter head.
                3. Properly clear any malfunctions.
                4. Properly react to mission developments and pop-up threats.

                Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. ALE-43.

External Support. Special Use Airspace.

EW-421   2.0   1 EA-6B A (N)

Goal. Introduce/review the requirements for successful completion
of EP training support for Fleet units.

Requirements. May be conducted day or night against any Fleet
unit requesting EP training.
1. Discuss EP training for Fleet units.
2. Coordinate with the supported unit.
3. Develop TEAMS/ETIRMS mission.
4. Prepare communications plan and code words as necessary.
5. Maintain EA/ES logs.

Performance Standards
1. Properly coordinated with supported unit.
2. Properly provided EW training for supported unit.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. As required.

External Support. As required.

SEW-422   2.0   R 1 2F143/15E22C S/A (N)

Goal. Introduce Expeditionary Strike Group support tactics in the
littoral.

Requirements. Should be conducted as an integrated simulator.
May be completed in the aircraft day or night.
1. Discuss ESG concepts to include but not limited to ASMD,
   maritime air support, etc. The Mission Commander will develop
   the training requirements, which may include:
   a. TEAMS mission.
   b. EA and/or HARM game plan.
   c. Employment of EA-6B ISO amphibious operations.
   d. Localize/identify/strike target ship.
   e. Utilize WAS tactics for attack.
   f. Practice degraded operations.

Performance Standards
1. Properly analyzed mission.
2. Properly conduct EW targeting in support of mission.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. None.

Ordnance. As required.

External Support. As required.

EW-423   2.0   R 1 EA-6B A (N)

Goal. Introduce/review the requirements necessary to integrate EW with National Assets during mission planning and execution.

Requirements. May be flown day or night. Every attempt shall be made to receive capabilities briefs of the assets involved in the mission.
1. Discuss National Asset platform(s) involved in the mission. The Mission Commander will develop the training requirements which may include:
   a. Develop TEAMS mission.
   b. Develop communications plan and reporting procedures.
   c. Correlate OBS signals with National sources in order to provide more accurate indications and warning to other tactical assets.
   d. Correlate OBS signals to increase EA effectiveness.
   e. Verify ELINT broadcast airborne if capable.
   f. Properly initialize MATT if available.
   g. Send and receive IDM message if available.

Performance Standards
1. Properly analyzed mission.
2. Properly coordinated with national asset.
3. Properly executed planned mission.
4. Properly reacted to mission developments and pop-up threats.

Crew. Pilot/ECMO 1/2/3.

Prerequisites. NAV-202.

Ordnance. As required.

External Support. National Asset(s).

EW-424   2.0   R 1 EA-6B A (N)

Goal. Introduce/review electronic warfare in support of large force exercise or contingency operations.

Requirements. May be flown day or night.
1. Discuss EW in support of exercise scenario and missions. The Mission Commander will develop training requirements which may include:
   a. TEAMS/ETIRMS mission.
   b. Determine EA-6B(s) EW and route timing in per the exercise scenario.
   c. Determine optimum load-out.
   d. Coordinate TERPES and Intelligence brief of scenario and EOB.
   e. Develop HARM plan.
   f. Brief HVAA protection plan.
   g. USQ-113 integration and targeting.
   h. Expendables game plan.
   i. EMI with friendly systems.

Performance Standards
1. Properly analyzed mission.

        2. Properly conduct EW targeting in support of mission.
        3. Properly executed planned mission.
        4. Properly reacted to mission developments and pop-up threats.

        Crew. Pilot/ECMO 1/2/3.

        Prerequisites. NAV-202.

        Ordnance. As required.

        External Support. As required.

5. Threat Reaction (TRXN)

    a. Purpose. To introduce/review section EA-6B threat reaction for Surface-To-Air missiles (SAM) and Anti-Aircraft Artillery (AAA).

    b. General. Emphasize crew coordination, aircraft performance characteristics, and threat reaction skills. The DEFTACI shall evaluate aircrew under instruction.

    c. Crew Requirements. For a pilot's initial flight, a designated DEFTACI pilot shall lead.

    d. Ground/Academic Training. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

    e. Flight and Simulator Event Training (1 flight, 1.5 hours)

TRXN-430   1.5   R E 2 EA-6B A (NS)

        Goal. Introduce/review section EA-6B threat reaction for Surface-To-Air missiles (SAM) and Anti-Aircraft Artillery (AAA).

        Requirements. No lower than 500 ft AGL.
        1. Discuss EA-6B threat reaction to SAM, AAA, and AAM.
        2. Introduce the following IAW MAWTS-1 EA-6B courseware:
            a. Section SAM threat reaction maneuvers.
            b. Section AAA threat reaction maneuvers.
            c. Threat reaction communications and expendables use.

        Performance Standards. Properly perform all maneuvers per MAWTS-1 EA-6B courseware.

        Crew. Pilot/ECMO 1/2/3. DEFTACI if required.

        Prerequisites. TRXN-261.

        Ordnance. 40 Chaff/20 Flares.

        External Support. Special Use Airspace. When able, use smokey SAMs and feedback capable emitters to measure radar break-lock and expendable effectiveness.

6. Defensive Tactics (DEFTAC)

    a. Purpose. To introduce advanced DEFTAC, section coordination tactics, escort tactics, and escort coordination.

b. <u>General</u>. The intent of these sorties is to reinforce aircrew situational awareness in multi-plane environments and BVR/WVR DEFTAC. The DEFTACI shall evaluate aircrew under instruction. One dissimilar radar-missile/BVR capable aircraft is required.

c. <u>Crew Requirements</u>. A designated DEFTACI Pilot or ECMO 1 shall be crewed with non-qualified DEFTAC aircrew. If all aircrew in the events are DEFTAC qualified, a DEFTACI is not required. The pilot's initial flight shall be lead by a DEFTACI pilot. Pilots must complete all DEFTAC events in the pilot seat. ECMOs may fly this DEFTAC event in any ECMO seat.

d. <u>Ground/Academic Training</u>. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. <u>Flight and Simulator Event Training (1 flight, 1.5 hours)</u>

<u>DEFTAC-440</u>   <u>1.5</u>   <u>R E 2 EA-6B A / 1 Dissimilar Aircraft A</u>

<u>Goal</u>. Introduce/review section DEFTAC communications and situational awareness required for Intercept Control and BVR engagements, determination of slide/scram criteria, and FQMD.

<u>Requirements</u>. GCI/AEW required if available. If no radar control available, an air-intercept radar equipped bogey may provide reverse GCI control. TACTS recommended if available.
1. Discuss Section DEFTAC.
2. Introduce:
    a. Maneuver section to counter a Zone 1 threat outside of E-Pole.
    b. Section FQMD to counter a Zone 1 threat inside of E-Pole.
    c. Maneuver section to counter a Zone 2 threat outside of E-Pole.
    d. Counter a threat outside of E-Pole from a non-visual set-up in an EW Track.
    e. Counter a threat inside of E-Pole from a non-visual set-up in an EW Track.

<u>Performance Standards</u>
1. Properly determine Slide/Scram and E-Pole ranges and directions.
2. Properly interpret AIC/GCI communications.
3. Properly establish de-confliction criteria.
4. When targeted, execute effective FQMD; when not targeted, execute effective Scram tactics.
5. Maintain mutual support via communications.

<u>Crew</u>. Pilot/ECMO 1/2/3. DEFTACI as required

<u>Prerequisites</u>. FORM-211 and SDEFTAC-321.

<u>Ordnance</u>. 40 Chaff/20 Flares.

<u>External Support</u>. Special Use Airspace, Instrumented Range, dissimilar F/W adversary, and GCI/AEW.

7. <u>Expeditionary Airfield Operations (EAF)</u>

a. <u>Purpose</u>. To prepare aircrew for operations from a short, tactical EAF.

b. <u>General</u>. EAF training may be conducted when operational requirements dictate. Appropriate facility requirements include FCLP capability and short-field arresting gear. The pilot/ECMO 1 are considered EAF trained upon the completion of 1 day and 1 night arrested landing.

c. <u>Crew Requirements</u>. Pilot and ECMO 1.

d. <u>Ground/Academic Training</u>. Applicable academic courseware as outlined in the EA-6B chapter of the MAWTS-1 course catalog.

e. <u>Flight and Simulator Event Training (2 flights, 2.0 hours/1 simulator, 2.0 hours)</u>

<u>SEAF-450</u>   <u>2.0</u>   <u>1 2F143 S</u>

<u>Goal</u>. Introduce the procedures and techniques required for EAF and FCLP operations.

<u>Requirements</u>.
1. Discuss EAF operations.
2. Introduce proper entry and departure procedures at the EAF.
3. Conduct a minimum of 2 Mode 2 approaches, 2 "Bulls eye" approaches, and 2 GCAs.
4. Complete a minimum of 2 night and 2 day arrested landings.
5. Appropriately deal with various landing emergencies associated with EAF operations.

<u>Performance Standards</u>
1. Properly perform 2 day and 2 night arrested landings.
2. Properly identify and react to various takeoff and landing emergencies.

<u>Crew</u>. Pilot/ECMO 1.

<u>Prerequisites</u>. None.

<u>Ordnance</u>. None.

<u>External Support</u>. None.

<u>EAF-451</u>   <u>1.0</u>   <u>R E 1 EA-6B A</u>

<u>Goal</u>. Obtain day EAF qualification.

<u>Requirements</u>. EAF qualified LSO.
1. Discuss EAF operations.
2. Complete at least 1 arrested landing.
3. Demonstrate proper entry and departure procedures from the EAF.

<u>Performance Standards</u>
1. Safely accomplish at least 1 arrested landing.
2. Comply with LSO direction.

<u>Crew</u>. Pilot/ECMO 1.

<u>Prerequisites</u>. SEAF-450.

<u>Ordnance</u>. None.

External Support. EAF and LSO as required.

EAF-452   1.0   R E 1 EA-6B A N

Goal. Obtain night EAF qualification.

Requirements. EAF qualified LSO. Same as EAF-451 except flown at night.

Performance Standards. Same as EAF-451.

Crew. Pilot/ECMO 1.

Prerequisites. EAF-451.

Ordnance. None.

External Support. EAF and LSO as required.

8. Field Carrier Landing Practice (FCLP)/Carrier Qualification (CQ)

   a. Purpose. To prepare aircrew for operations from an aircraft carrier.

   b. General

      (1) FCLP will be conducted per current NATOPS and other applicable guidelines and under the control of a qualified LSO. Totals of graded passes may vary and the LSO is responsible for ensuring that the proficiency demonstrated by each pilot is sufficient for successful carrier qualification. The LSO will monitor the pilot's tendencies for all simulator events. Upon completion of the appropriate work-up period the LSO will provide written certification for all pilots. There is no requirement for certification/evaluation of ECMOs, but they will receive CRP credit for front-seat CQ sorties.

      (2) All CQ aircrew will complete SCQ-462 prior to commencing CQ.

   c. Crew Requirement. Pilot and ECMO 1.

   d. Ground Training. As directed by the LSO.

   e. Flight and Simulator Event Training (4 flights, 4.0 hours /1 simulator, 2.0 hours)

FCLP-460   1.0   E 1 EA-6B A

Goal. Practice day FCLPs.

Requirements. Field qualified EA-6B LSO.
1. Discuss FCLP.
2. May be conducted as a single sortie or at the completion of
   another sortie.
3. Complete a minimum of 6 graded passes under the control of a
   qualified LSO.

Performance Standards. Per CV NATOPS.

Crew. Pilot/ECMO 1.

Prerequisites. None.

Ordnance. None.

External Support. A field qualified LSO if the squadron does not possess one.

FCLP-461   1.0   E 1 EA-6B A N

Goal. Practice night FCLPs.

Requirements. Same as FCLP-460 except at night.

Performance Standards. Same as FCLP-460 except at night.

Crew. Pilot/ECMO 1.

Prerequisites. At least 1 day FCLP period.

Ordnance. None.

External Support. A field qualified LSO if the squadron does not possess one.

SCQ-462   2.0   1 2F143 S

Goal. Introduce CV check-in, marshal, recovery, and departure procedures. Introduce communications and crew coordination requirements for successful carrier operations. Introduce CV emergencies.

Requirements. CV qualified EA-6B LSO at the console.
1. Discuss CQ.
2. Complete a minimum of 2 touch-and-go landings, 4 traps, and at least 4 cat shots.
3. Multiple Case I and II approaches.

Performance Standards
1. Properly demonstrate appropriate arrival and departure communications and procedures.
2. Appropriately resolve selected CV emergencies.

Crew. Pilot/ECMO 1.

Prerequisites. None.

Ordnance. None.

External Support. CV qualified EA-6B LSO if the squadron does not possess one.

CQ-463   1.5   E 1 EA-6B A

Goal. Day qualify for carrier operations.

Requirements. Under the control of a CV qualified EA-6B LSO. Complete required number of touch-and-go's and arrested landings per CV NATOPS.

Performance Standards. Per CV NATOPS.

Crew. Pilot/ECMO 1.

Prerequisites. LSO work-up certification. FCLP-460, SCQ-462.

Ordnance. None.

External Support. CV qualified EA-6B LSO if the squadron does not possess one.

CQ-464   2.0   E 1 EA-6B A N

Goal. Night qualify for carrier operations.

Requirements. Under the control of a CV qualified EA-6B LSO. Complete required number of touch-and-go's and arrested landings per CV NATOPS.

Performance Standards. Per CV NATOPS.

Crew. Pilot/ECMO 1.

Prerequisites. LSO work-up certification. FCLP-461, SCQ-462.

Ordnance. None.

External Support. CV qualified EA-6B LSO if the squadron does not possess one.

140. INSTRUCTOR TRAINING

1. General

   a. This phase contains instructor work-up and certification syllabus events. Instructor certification requirements are delineated by the Commanding Officer of MAWTS-1 and detailed in the approved MAWTS-1 NSI and DEFTACI Guides.

   b. Instructor certification stages

      (1) Night Systems Instructor (NSI)

      (2) Defensive Tactics Instructor (DEFTACI)

2. Night Systems Instructor (NSI). Purpose: Work-up and certify NSI.

NSI-500   2.0   E 1 EA-6B A NS

Goal. NSI work-up sortie.

Requirements. IUT a NS-220. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

NSI-501   2.0   E 1 EA-6B A NS

Goal. NSI work-up sortie.

Requirements. IUT a NS-221. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

NSI–502   2.0   E 2 EA-6B A NS

        Goal. NSI work-up sortie.

        Requirements. IUT a NS-222. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

NSI–503   2.0   E 2 EA-6B A NS

        Goal. NSI certification sortie.

        Requirements. Certify a NS-223. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

3. DEFTAC Instructor. Purpose: Work-up and certify DEFTAC instructors.

DEFTAC–510   1.5   E 1 EA-6B A

        Goal. DEFTACI work-up sortie.

        Requirements. IUT a TRXN-261. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC–511   1.5   E 1 EA-6B A / 1 Dissimilar A/C A

        Goal. DEFTACI work-up sortie.

        Requirements. IUT a DEFTAC-320. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC–512   1.5   E 1 EA-6B A / 1 Dissimilar A/C A

        Goal. DEFTACI work-up sortie.

        Requirements. IUT a DEFTAC-322. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC–513   1.5   E 2 EA-6B A / 1 Dissimilar A/C A

        Goal. DEFTACI work-up sortie.

        Requirements. For prospective DEFTACI pilots only. IUT a TRXN-430 and DEFTAC-440. Should be combined on 1 sortie. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC–514   1.5   E 2 EA-6B A / 1 Dissimilar A/C A

        Goal. DEFTACI certification sortie.

        Requirements. Certify a DEFTAC-320. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC–515   1.5   E 1 EA-6B A / 1 Dissimilar A/C A

        Goal. DEFTACI certification sortie.

Requirements. For prospective DEFTACI ECMOs only. Certify a DEFTAC-322. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

DEFTAC-516   1.5   E   2 EA-6B A / 1 Dissimilar A/C A

Goal. DEFTACI certification sortie.

Requirements. For prospective DEFTACI pilots only. Certify a TRXN-430 and DEFTAC-440. Should be combined on 1 sortie. See MAWTS-1 Course Catalog for additional requirements, performance standards, and guidance.

150. REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS

1. General

    a. This phase contains tracking codes and events designed to facilitate training management. This level also provides community standardization for combat leadership designation.

    b. 600-level stages. These stages are known as Requirements, Qualifications, Core Skill Complete, Work-up and Designation, and Tracking.

2. Requirements

    a. Purpose. To track requirements as outlined in NATOPS AND OPNAVINST 3710.7.

    b. General. This section allows squadrons to document and track annual NATOPS, Instrument, and CRM check flights.

    c. Crew Requirements. All checks will be per all applicable directives. NATOPS front seat and back seat, Instrument, and CRM checks may be accomplished in the trainer or the aircraft. ECMOs shall complete Instrument and front-seat NATOPS checks in the front seat only.

    d. Ground/Academic Training. Per applicable publications, directives, and courseware.

    e. Flight and Simulator Event Training (Pilots: 0 flights, 0.0 hours/3 simulators, 6.0 hours; ECMOs: 0 flights, 0.0 hours/4 simulators, 8.0 hours)

REQ-600   2.0   E   2F143/1 EA-6B S/A

Goal. Evaluate knowledge of front seat systems. Annual NATOPS qualification.

Requirements. Set forth in applicable directives.

Performance Standards. Per NATOPS.

Crew. Evaluated crewmember and NATOPS Instructor.

Prerequisites. None.

Ordnance. None.

External Support. None.

REQ-601   2.0   E 15E22C/1 EA-6B S/A

          Goal. Evaluate knowledge of back seat systems. Back seat NATOPS
          qualification.

          Requirements. Set forth in applicable directives.

          Performance Standards. Per NATOPS.

          Crew. Evaluated ECMO and NATOPS Instructor.

          Prerequisites. None.

          Ordnance. None.

          External Support. None.

REQ-602   2.0   E 2F143/1 EA-6B S/A

          Goal. Evaluate the knowledge of and adherence to standard
          instrument procedures. Instrument qualification.

          Requirements. Set forth in applicable directives.

          Performance Standards. Per NATOPS and the Instrument Flight
          Manual.

          Crew. Evaluated crewmember and Instrument Evaluator.

          Prerequisites. None.

          Ordnance. None.

          External Support. None.

REQ-603   2.0   E 2F143/ 1 EA-6B S/A

          Goal. Evaluate the knowledge of and adherence to standard CRM.

          Requirements. Requirements will be delineated by the selected CRM
          scenario. May be flown in conjunction with the front seat NATOPS
          check or any other event deemed acceptable by the
          instructor/facilitator.

          Performance Standards. Per CRM course objectives.

          Crew. Evaluated crewmember and CRM Instructor or Facilitator.

          Prerequisites. Applicable CRM courseware.

          Ordnance. None.

          External Support. None.

3. Qualifications

    a. Purpose. To track completion of qualifications. Refer to the Core Skill
Basic, Advanced, and Core Plus phases for qualification requirements.

b. <u>General</u>. Qualification codes do not constitute events themselves.
Rather, they will be logged upon completion of qualification requirements; the
qualification letter has been signed by the commanding officer, filed in the
crewmember's NATOPS jacket and APR, and an entry made in the crewmember's
logbook. Requirements for maintaining qualifications are detailed in the
Aviation T&R Program Manual.

c. <u>Crew Requirements</u>. Per the applicable qualification syllabus.

d. <u>Ground/Academic Training</u>. Per NS and DEFTAC stage syllabus requirements.

<u>QUAL-610</u>   <u>0.0</u>   <u>Tracking</u>

     <u>Goal</u>. Complete Night Systems Qualification.

     <u>Requirements</u>. Satisfactory completion of NS qualification
syllabus.

     <u>Performance Standards</u>. Per syllabus description.

     <u>Crew</u>. Pilot or ECMO.

     <u>Prerequisites</u>. NS-223.

     <u>Ordnance</u>. None.

     <u>External Support</u>. None.

<u>QUAL-611</u>   <u>0.0</u>   <u>Tracking</u>

     <u>Goal</u>. Complete DEFTAC Qualification.

     <u>Requirements</u>. Satisfactory completion of DEFTAC qualification
syllabus.

     <u>Performance Standards</u>. Per syllabus description.

     <u>Crew</u>. Pilot or ECMO.

     <u>Prerequisites</u>. DEFTAC-322.

     <u>Ordnance</u>. None.

     <u>External Support</u>. None.

4. <u>Core Skill Complete (CSC)</u>

a. <u>Purpose</u>. To track completion of academic, simulator, and flight training
in core skills.

b. <u>General</u>. CSC codes do not constitute events themselves. Rather, they
will be logged by Operations personnel following completion of the set of T&R
codes required to attain individual CSP as detailed in the EA-6B CMMR paragraph
106. CSC codes provide operations and training officers with quick reference to
whether crewmembers are attaining or maintaining core skills per paragraph 106.

c. <u>Crew Requirements</u>. Per the applicable core skill syllabus.

d. <u>Ground/Academic Training</u>. Per the applicable core skill syllabus.

CSC-620   0.0   Tracking

              Goal. FAM/NAV core skill complete.

              Requirements. Satisfactory completion of required FAM/NAV events.

              Performance Standards. Per syllabus description.

              Crew. Pilot or ECMO.

              Prerequisites. None.

              Ordnance. None.

              External Support. None.

CSC-621   0.0   Tracking

              Goal. Formation core skill complete.

              Requirements. Satisfactory completion of required formation
              events.

              Performance Standards. Per syllabus description.

              Crew. Pilot or ECMO.

              Prerequisites. None.

              Ordnance. None.

              External Support. None.

CSC-622   0.0   Tracking

              Goal. Air Refueling core skill complete.

              Requirements. Satisfactory completion of required air refueling
              events.

              Performance Standards. Per syllabus description.

              Crew. Pilot or ECMO.

              Prerequisites. None.

              Ordnance. None.

              External Support. None.

CSC-623   0.0   Tracking

              Goal. Electronic Warfare Support (ES) core skill complete.

              Requirements. Satisfactory completion of required ES events.

              Performance Standards. Per syllabus description.

              Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

CSC-624   0.0   Tracking

Goal. Electronic Attack (EA) core skill complete.

Requirements. Satisfactory completion of required EA events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

CSC-625   0.0   Tracking

Goal. Threat Reaction core skill complete.

Requirements. Satisfactory completion of required Threat Reaction events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

CSC-626   0.0   Tracking

Goal. Offensive Air Support (OAS) core skill complete.

Requirements. Satisfactory completion of required OAS events.

Performance Standards. Per syllabus description.

Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

CSC-627   0.0   Tracking

Goal. Task Force Support (TFS) core skill complete.

Requirements. Satisfactory completion of required TFS events.

Performance Standards. Per syllabus description.

        Crew. Pilot or ECMO.

        Prerequisites. None.

        Ordnance. None.

        External Support. None.

5. Work-Up And Designation

    a. Purpose. To track the work-up and designation of flight leaders and
instructors.

    b. General. This section enables squadrons to document and track the work-
up and designation of flight leaders and instructors. All work-up codes for a
specific designation must be complete prior to the check flight. The Operations
Department shall log final designation codes once designated by the commanding
officer. Flight leaders and instructor designations include: Section Lead,
Division Lead, Mission Commander, Night Systems Instructor, DEFTAC Instructor,
Electronic Warfare Tactics Officer (EWTO), Weapons and Tactics Instructor (WTI),
NATOPS Instructor, Assistant NATOPS Instructor, Instrument Evaluator, CRM
Instructor, CRM Facilitator, Field LSO, Functional Check Flight Pilot/ECMO, and
Risk Manager.

    c. Crew Requirements. Per the applicable work-up and designation syllabus.

    d. Ground/Academic Training. Per the applicable work-up and designation
syllabus.

    e. Section Lead

        (1) Purpose. To train and designate Section Leads.

        (2) General. Emphasize flight leadership skills. The listed events are
the minimum required of a pilot to be designated a Section Lead. Unit commanders
may apply additional requirements:

            (a) Formation core skill complete.

            (b) Night Systems qualified.

            (c) Lead FORM-210/211/212, and NS-223.

            (d) Lead a section through air refueling day and night-aided as part
of the above events.

        (3) Crew Requirements. Section lead training events require a designated
Section Lead. The designated Section Lead shall evaluate the Section Lead under
instruction (SLUT).

        (4) Ground/Academic Training. See MAWTS-1 Course Catalog.

        (5) Flight and Simulator Event Training (4 events, 8.0 hours)

SLUT-630   2.0   E 2 EA-6B A

            Goal. Section Lead work-up sortie.

Requirements. Lead a FORM-210.

Performance Standards. Per sortie description.

Crew. SLUT pilot in lead aircraft, Section lead in wing aircraft.

Prerequisites. FORM-212.

Ordnance. None.

External Support. Special Use Airspace.

SLUT-631   2.0   E 2 EA-6B A

Goal. Section Lead work-up sortie.

Requirements. Lead a FORM-211.

Performance Standards. Per sortie description.

Crew. SLUT Pilot in lead aircraft, Section lead in wing aircraft.

Prerequisites. FORM-212.

Ordnance. None.

External Support. Special Use Airspace.

SLUT-632   2.0   E 2 EA-6B A

Goal. Section Lead work-up sortie.

Requirements. Lead a FORM-212.

Performance Standards. Per sortie description.

Crew. SLUT Pilot in lead aircraft, Section Lead in wing aircraft.

Prerequisites. FORM-212.

Ordnance. None.

External Support. Approved MTR.

SLUT-633   2.0   E 2 EA-6B A NS

Goal. Section Lead work-up sortie.

Requirements. Lead an NS-223.

Performance Standards. Per sortie description.

Crew. SLUT Pilot in lead aircraft, Section Lead in wing aircraft.

Prerequisites. FORM-212 and NS-223.

Ordnance. None.

External Support. Approved MTR.

SLUT-634   1.0   E 2 EA-6B A

        Goal. Lead a section through air refueling during the day. May
        be logged in conjunction with any other SLUT event.

        Requirements. Lead a section through air refueling.

        Performance Standards. Safely rendezvous, refuel, and depart the
        tanker.

        Crew. SLUT Pilot in lead aircraft, Section Lead in wing aircraft.

        Prerequisites. FORM-212.

        Ordnance. None.

        External Support. Aerial refueling platform and Special Use
        Airspace.

SLUT-635   1.0   E 2 EA-6B A NS

        Goal. Lead a section through air refueling at night with NVDs.
        May be logged in conjunction with any NS SLUT event.

        Requirements. Lead a section through air refueling at night with
        NVDs.

        Performance Standards. Safely rendezvous, refuel, and depart the
        tanker.

        Crew. SLUT Pilot in lead aircraft, Section Lead in wing aircraft.

        Prerequisites. FORM-212 and NS-223.

SLUT-636   0.0   Tracking

        Goal. Section Lead check flight.

        Requirements. Lead any SLUT sortie as the Section Lead check
        flight. Scheduled and logged in conjunction with the final SLUT
        flight code.

        Performance Standards. Per sortie description.

        Crew. SLUT Pilot in lead aircraft, Section Lead in wing aircraft.

        Prerequisites. All other SLUT flights complete.

        Ordnance. None.

        External Support. Per sortie description.

DESIG-637   0.0   Tracking

        Goal. Section Lead designated.

        Requirements. Designated by the commanding officer as a Section
        Lead, appropriate entry made in logbook, letter filed in NATOPS
        and APR jackets.

        <u>Performance Standards</u>. None.

        <u>Crew</u>. None.

        <u>Prerequisites</u>. SLUT-636.

        <u>Ordnance</u>. None.

        <u>External Support</u>. None.

  f. <u>Division Lead</u>

     (1) <u>Purpose</u>. To train and designate Division Leads.

     (2) <u>General</u>. Emphasize flight leadership skills. The listed events are the minimum required of a pilot to be designated a Division Lead. Unit commanders may apply additional requirements.

        (a) Section Lead designated.

        (b) Lead 2 FORM-400 flights, 1 during the day and 1 at night using NVDs.

        (c) Lead a division through air refueling day and night-aided as part of the above events.

     (3) <u>Crew Requirements</u>. Division Lead training events require a designated Division Lead. The designated Division Lead shall evaluate the Division Lead under instruction (DLUT).

     (4) <u>Ground/Academic Training</u>. See MAWTS-1 Course Catalog.

     (5) <u>Flight and Simulator Event Training (2 events, 4.0 hours)</u>

<u>DLUT-638</u>   <u>2.0</u>   E 3 or more EA-6B A

        <u>Goal</u>. Division Lead work-up sortie.

        <u>Requirements</u>. Lead a FORM-400 during the day.

        <u>Performance Standards</u>. Per sortie description.

        <u>Crew</u>. DLUT Pilot in lead aircraft, Division Lead in flight.

        <u>Prerequisites</u>. DESIG-637.

        <u>Ordnance</u>. None.

        <u>External Support</u>. Special Use Airspace.

<u>DLUT-639</u>   <u>2.0</u>   E 3 or more EA-6B A NS

        <u>Goal</u>. Division Lead work-up sortie.

        <u>Requirements</u>. Lead a FORM-400 at night using NVDs.

        <u>Performance Standards</u>. Per sortie description.

        <u>Crew</u>. DLUT Pilot in lead aircraft, Division Lead in flight.

        <u>Prerequisites</u>. DESIG-637.

Ordnance. None.

External Support. Special Use Airspace.

DLUT-640   1.0   E 3 or more EA-6B A

Goal. Lead a division through air refueling during the day. May be logged in conjunction with DLUT-638.

Requirements. Lead a division through air refueling.

Performance Standards. Safely rendezvous, refuel, and depart the tanker.

Crew. DLUT Pilot in lead aircraft, Section Lead in wing aircraft.

Prerequisites. DESIG-637.

Ordnance. None.

External Support. Aerial refueling platform and Special Use Airspace.

DLUT-641   2.0   E 3 or more EA-6B A NS

Goal. Lead a division through air refueling at night with NVDs. To be logged in conjunction with any NS DLUT event.

Requirements. Lead a division through air refueling at night with NVDs.

Performance Standards. Safely rendezvous, refuel, and depart the tanker.

Crew. DLUT Pilot in lead aircraft, Section Lead in wing aircraft.

Prerequisites. DESIG-637.

Ordnance. None.

External Support. Aerial refueling platform and Special Use Airspace.

DLUT-642   0.0   Tracking

Goal. Division Lead check flight.

Requirements. Lead any DLUT sortie as the Division Lead check flight. Scheduled and logged in conjunction with the final DLUT flight code.

Performance Standards. Per sortie description.

Crew. DLUT Pilot in lead aircraft, Division Lead in flight.

Prerequisites. All other DLUT flights complete.

Ordnance. None.

External Support. Per sortie description.

DESIG-643   0.0   Tracking

          Goal. Division Lead designated.

          Requirements. Designated by the commanding officer as a Division
          Lead, appropriate entry made in logbook, letter filed in NATOPS
          and APR jackets.

          Performance Standards. None.

          Crew. None.

          Prerequisites. None.

          Ordnance. None.

          External Support. None.

     g. Mission Commander

          (1) Purpose. To train and designate Mission Commanders.

          (2) General. Emphasize combat flight leadership skills. Mission
Commanders must have a clearly demonstrated ability to carry a mission to
completion through individual knowledge and professional skills. The listed
events below are the minimum required of a pilot or ECMO to be designated a
Mission Commander. Unit commanders may apply additional requirements.

               (a) The Mission Commander Under Training (MCUT) will be evaluated in
the ability to effectively plan and brief the following missions (may be
completed in aircraft, simulator, or as a planning and briefing exercise [MAPEX]:

                         - OAS-301
                         - OAS-304
                         - OAS-307
                         - OAS-309
                         - TFS-311
                         - TFS-312
                         - TFS-313

               (b) The MCUT will be evaluated in the ability to effectively perform
as a Mission Commander for the following missions (Shall be flown in the
aircraft):
                         - OAS-301
                         - OAS-304
                         - OAS-307
                         - OAS-309
                         - TFS-311
                         - TFS-312
                         - TFS-313

               (c) Additionally, Mission Commanders should have the following
complete (none are required):

                         - 400 hours in type.
                         - Night Systems qualified.
                         - DEFTAC qualified.
                         - Section Lead (pilots only).

(3) <u>Crew Requirements</u>. Mission Commander training events require a designated Mission Commander in the event. The designated Mission Commander shall evaluate the MCUT.

        (4) <u>Ground/Academic Training</u>. Refer to MAWTS-1 Course Catalog.

        (5) <u>Flight and Simulator Event Training (14 events, 28.0 hours)</u>

<u>MCUT-644</u>   <u>2.0</u>   E   1 EA-6B A/S

                <u>Goal</u>. Mission Commander plan and brief flight.

                <u>Requirements</u>. Plan and brief an OAS-301.

                <u>Performance Standards</u>. Per sortie description.

                <u>Crew</u>. MCUT, Mission Commander.

                <u>Prerequisites</u>. OAS-301.

                <u>Ordnance</u>. None.

                <u>External Support</u>. Per sortie description.

<u>MCUT-645</u>   <u>2.0</u>   E   1 EA-6B A/S

                <u>Goal</u>. Mission Commander plan and brief flight.

                <u>Requirements</u>. Plan and brief an OAS-304.

                <u>Performance Standards</u>. Per sortie description.

                <u>Crew</u>. MCUT, Mission Commander.

                <u>Prerequisites</u>. OAS-304.

                <u>Ordnance</u>. None.

                <u>External Support</u>. Per sortie description.

<u>MCUT-646</u>   <u>2.0</u>   E   1 EA-6B A/S

                <u>Goal</u>. Mission Commander plan and brief flight.

                <u>Requirements</u>. Plan and brief an OAS-307.

                <u>Performance Standards</u>. Per sortie description.

                <u>Crew</u>. MCUT, Mission Commander.

                <u>Prerequisites</u>. OAS-307.

                <u>Ordnance</u>. None.

                <u>External Support</u>. Per sortie description.

<u>MCUT-647</u>   <u>2.0</u>   E   2 EA-6B A/S

                <u>Goal</u>. Mission Commander plan and brief flight.

Requirements. Plan and brief an OAS-309.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. OAS-309.

Ordnance. None.

External Support. Per sortie description.

MCUT-648   2.0   E 1 EA-6B A/S

Goal. Mission Commander plan and brief flight.

Requirements. Plan and brief a TFS-311.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. TFS-311.

Ordnance. None.

External Support. Per sortie description.

MCUT-649   2.0   E 1 EA-6B A/S

Goal. Mission Commander plan and brief flight.

Requirements. Plan and brief a TFS-312.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. TFS-312.

Ordnance. None.

External Support. Per sortie description.

MCUT-650   2.0   E 1 EA-6B A/S

Goal. Mission Commander plan and brief flight.

Requirements. Plan and brief a TFS-313.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. TFS-313.

Ordnance. None.

External Support. Per sortie description.

MCUT-651   2.0   E 1 EA-6B A

      Goal. Mission Commander performance flight.

      Requirements. Lead an OAS-301.

      Performance Standards. Per sortie description.

      Crew. MCUT, Mission Commander.

      Prerequisites. MCUT-644.

      Ordnance. None.

      External Support. Per sortie description.

MCUT-652   2.0   E 1 EA-6B A

      Goal. Mission Commander performance flight.

      Requirements. Lead an OAS-304.

      Performance Standards. Per sortie description.

      Crew. MCUT, Mission Commander.

      Prerequisites. MCUT-645.

      Ordnance. None.

      External Support. Per sortie description.

MCUT-653   2.0   E 1 EA-6B A

      Goal. Mission Commander performance flight.

      Requirements. Lead an OAS-307.

      Performance Standards. Per sortie description.

      Crew. MCUT, Mission Commander.

      Prerequisites. MCUT-646.

      Ordnance. None.

      External Support. Per sortie description.

MCUT-654   2.0   E 2 EA-6B A

      Goal. Mission Commander performance flight.

      Requirements. Lead an OAS-309.

      Performance Standards. Per sortie description.

      Crew. MCUT, Mission Commander.

      Prerequisites. MCUT-647.

Ordnance. None.

External Support. Per sortie description.

MCUT-655   2.0   E 1 EA-6B A

Goal. Mission Commander performance flight.

Requirements. Lead a TFS-311.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. MCUT-648.

Ordnance. None.

External Support. Per sortie description.

MCUT-656   2.0   E 1 EA-6B A

Goal. Mission Commander performance flight.

Requirements. Lead a TFS-312.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. MCUT-649.

Ordnance. None.

External Support. Per sortie description.

MCUT-657   2.0   E 1 EA-6B A

Goal. Mission Commander performance flight.

Requirements. Lead a TFS-313.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. MCUT-650.

Ordnance. None.

External Support. Per sortie description.

MCUT-658   0.0   Tracking

Goal. Mission Commander check flight.

Requirements. Lead any MCUT performance sortie. Scheduled and logged in conjunction with the final MCUT flight code.

Performance Standards. Per sortie description.

Crew. MCUT, Mission Commander.

Prerequisites. All other MCUT events complete, CSC-626, CSC-627.

Ordnance. None.

External Support. Per sortie description.

DESIG-659   0.0   Tracking

Goal. Mission Commander designated.

Requirements. Designated by the commanding officer as a Mission Commander, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. None.

Ordnance. None.

External Support. None.

   h. Night Systems Instructor

DESIG-660   0.0   Tracking

Goal. Night Systems Instructor designated.

Requirements. Designated by the commanding officer as a Night Systems Instructor, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Certified by MAWTS-1 as an NSI.

Ordnance. None.

External Support. None.

   i. DEFTAC Instructor

DESIG-661   0.0   Tracking

Goal. DEFTAC Instructor designated.

Requirements. Designated by the commanding officer as a DEFTAC Instructor, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Certified by MAWTS-1 as a DEFTACI.

Ordnance. None.

External Support. None.

j. Electronic Warfare Tactics Officer (EWTO)

DESIG-662   0.0   Tracking

Goal. EWTO designated.

Requirements. Designated by the Commanding Officer as an EWTO, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Certified by MAWTS-1 as an EWTO.

Ordnance. None.

External Support. None.

k. Weapons and Tactics Instructor (WTI)

DESIG-663   0.0   Tracking

Goal. WTI designated.

Requirements. Designated by the commanding officer as a WTI, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Certified by MAWTS-1 as a WTI.

Ordnance. None.

External Support. None.

l. NATOPS Instructor

DESIG-664   0.0   Tracking

Goal. NATOPS Instructor designated.

Requirements. Designated by the commanding officer as a NATOPS Instructor, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per NATOPS and local SOP.

Ordnance. None.

External Support. None.

DESIG-665   0.0   Tracking

Goal. Assistant NATOPS Instructor designated.

Requirements. Designated by the commanding officer as an Assistant NATOPS instructor, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per NATOPS and local SOP.

Ordnance. None.

External Support. None.

   m.   Instrument Evaluator

DESIG-666   0.0   Tracking

Goal. Instrument Evaluator designated.

Requirements. Designated by the commanding officer as an Instrument Evaluator, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per NATOPS and local SOP.

Ordnance. None.

External Support. None.

   n.   Crew Resource Management (CRM) Instructor

DESIG-667   0.0   Tracking

Goal. CRM Instructor designated.

Requirements. Designated by the commanding officer as a CRM Instructor, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per CRM directives and local SOP.

Ordnance. None.

External Support. None.

DESIG-668   0.0   Tracking

Goal. CRM Facilitator designated.

Requirements. Designated by the commanding officer as a CRM Facilitator, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per CRM directives and local SOP.

Ordnance. None.

External Support. None.

   o. Field Landing Signal Officer (LSO)

DESIG-669   0.0   Tracking

Goal. Field LSO designated.

Requirements. Designated by the commanding officer as a Field LSO, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per LSO NATOPS and directives.

Ordnance. None.

External Support. None.

   p. Functional Check Flight (FCF) Pilot or ECMO

FCF-670   2.0   E 2F143 S/A

Goal. FCF Pilot/ECMO check flight.

Requirements. Per NATOPS and local SOP.

Performance Standards. Per NATOPS and local SOP.

Crew. FCF Pilot or ECMO under instruction and designated FCF Pilot/ECMO.

Prerequisites. Per NATOPS and local SOP.

Ordnance. None.

External Support. None.

DESIG-671   0.0   Tracking

Goal. FCF Pilot/ECMO designated.

Requirements. Designated by the commanding officer as a FCF Pilot or ECMO, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per NATOPS and local SOP.

Ordnance. None.

External Support. None.

q. Operational Risk Manager

DESIG-672   0.0   Tracking

Goal. Risk Manager designated.

Requirements. Designated by the commanding officer as a Risk Manager, appropriate entry made in logbook, letter filed in NATOPS and APR jackets.

Performance Standards. None.

Crew. None.

Prerequisites. Per ORM directives and local SOP.

Ordnance. None.

External Support. None.

151. TRACKING

    a. Purpose. To enable squadrons to track certain training evolutions, flight leadership currency, and live weapons employment.

    b. General. This section enables squadrons to document and track certain training evolutions, flight leadership currency, and live weapons employment.

            - Day KC-135 Tanking
            - Night KC-135 Tanking
            - Live HARM employment
            - Most recent Formation flight
            - Most recent Section Lead Flight
            - Most recent Division Lead Flight
            - Most recent Mission Commander Flight
            - Most recent FCF flight
            - SERE training
            - Ejection Seat Training
            - Aviation Swim/Physiology

- Annual Flight Physical
- Aviation Safety Officer Course

c. <u>Crew Requirements.</u> Per the applicable event.

d. <u>Ground/Academic Training.</u> Per the applicable event.

<u>AR-680</u>   <u>0.0</u>   <u>R Tracking</u>

<u>Goal</u>. Maintain pilot proficiency in day KC-135 tanking.

<u>Requirements</u>. KC-135 tanker.

<u>Performance Standards</u>. IAW AR-230

<u>Crew</u>. Pilot.

<u>Prerequisites</u>. None.

<u>Ordnance</u>. None.

<u>External Support</u>. KC-135.

<u>AR-681</u>   <u>0.0</u>   <u>R,(N) Tracking</u>

<u>Goal</u>. Maintain pilot proficiency in night KC-135 tanking.

<u>Requirements</u>. KC-135 tanker.

<u>Performance Standards</u>. IAW AR-231.

<u>Crew</u>. Pilot only.

<u>Prerequisites</u>. None.

<u>Ordnance</u>. None.

<u>External Support</u>. KC-135.

<u>SWD-682</u>   <u>0.0</u>   <u>Tracking</u>

<u>Goal</u>. Successful firing of live HARM.

<u>Requirements</u>. Live HARM employment.

<u>Performance Standards</u>. IAW EA-257/258.

<u>Prerequisites</u>. None.

<u>Crew</u>. Pilot/ECMO 1/2/3.

<u>Ordnance</u>. AGM-88.

<u>External Support</u>. Range clearing asset (P-3, AWACS, etc.), target emitter, and target placement equipment.

<u>TRK-683</u>   <u>0.0</u>   <u>Tracking</u>

<u>Goal</u>. Track most recent Formation Flight.

Requirements. This code is intended to be logged by Pilot and ECMO 1 concurrent with any event in which formation is flown, but T&R requirements are not met for a FORM T&R code. This enables squadrons to track formation currency for SOP requirements.

Performance Standards. None.

Crew. Pilot/ECMO 1.

Prerequisites. None.

Ordnance. None.

External Support. None.

TRK-684   0.0   Tracking

Goal. Track most recent Section Lead flight.

Requirements. This code is intended to be logged by the Pilot concurrent with any event in which the Pilot is the designated Section Lead. This enables squadrons to track flight leadership currency.

Performance Standards. None.

Crew. Section Lead Pilot.

Prerequisites. DESIG-637.

Ordnance. None.

External Support. None.

TRK-685   0.0   Tracking

Goal. Track most recent Division Lead flight.

Requirements. This code is intended to be logged by the Pilot concurrent with any event in which the Pilot is the designated Division Lead. This enables squadrons to track flight leadership currency.

Performance Standards. None.

Crew. Division Lead Pilot.

Prerequisites. DESIG-643.

Ordnance. None.

External Support. None.

TRK-686   0.0   Tracking

Goal. Track most recent Mission Commander Lead flight.

Requirements. This code is intended to be logged by the Pilot or ECMO concurrent with any event in which the crewmember is the

        designated Mission Commander. This enables squadrons to track flight leadership currency.

        <u>Performance Standards</u>. None.

        <u>Crew</u>. Mission Commander Pilot or ECMO.

        <u>Prerequisites</u>. DESIG-659.

        <u>Ordnance</u>. None.

        <u>External Support</u>. None.

<u>TRK-687</u>   <u>1.0</u>   <u>1</u> EA-6B A

        <u>Goal</u>. Track most recent FCF flight

        <u>Requirements</u>. This code is intended to be logged by the Pilot or ECMO each time they perform an FCF flight in the front seat. This enables squadrons to track FCF currency.

        <u>Performance Standards</u>. None.

        <u>Crew</u>. FCF Pilot and ECMO 1.

        <u>Prerequisites</u>. DESIG-671.

        <u>Ordnance</u>. None.

        <u>External Support</u>. None.

<u>TRK-688</u>   <u>0.0</u>   <u>Tracking</u>

        <u>Goal</u>. SERE Training complete.

        <u>Requirements</u>. This code is intended to be logged by squadrons for aircrew who are SERE training complete.

        <u>Performance Standards</u>. None.

        <u>Crew</u>. Pilot or ECMO.

        <u>Prerequisites</u>. None.

        <u>Ordnance</u>. None.

        <u>External Support</u>. None.

<u>TRK-689</u>   <u>0.0</u>   <u>Tracking</u>

        <u>Goal</u>. Ejection Seat Training complete.

        <u>Requirements</u>. This code is intended to be logged by squadrons for aircrew annual ejection seat training.

        <u>Performance Standards</u>. None.

        <u>Crew</u>. Pilot or ECMO.

        <u>Prerequisites</u>. None.

Ordnance. None.

External Support. None.

TRK-690   0.0   Tracking

Goal. Aviation Swim/Physiology Training Complete.

Requirements. This code is intended to be logged by squadrons for aircrew who complete aviation swim/physiology training.

Performance Standards. None.

Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

TRK-691   0.0   Tracking

Goal. Annual flight physical complete.

Requirements. This code is intended to be logged by squadrons for aircrew who complete their annual flight physical.

Performance Standards. None.

Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

TRK-692   0.0   Tracking

Goal. Aviation Safety School training complete.

Requirements. This code is intended to be logged by squadrons for aircrew who are aviation safety school trained.

Performance Standards. None.

Crew. Pilot or ECMO.

Prerequisites. None.

Ordnance. None.

External Support. None.

160. ORDNANCE REQUIREMENTS. Annual ordnance requirements are developed on a "per crew" basis per OPNAVNOTE 8010. One CATM-88 is required for each aircraft in the squadron.

1. <u>Expendable Ordnance</u>

ORDNANCE	200 Series	300 Series	400 Series	500 Series	600 Series	ANNUAL
AGM-88					.333	.333*
FLARES	20	240	40	180		480*
CHAFF	40	420	80	180		720*

2. <u>Captive Ordnance</u>

ORDNANCE	200 Series	300 Series	400 Series	500 Series	ANNUAL
Captive AGM-88			5		

* Indicates total number required per year "per crew" (Pilot/ECMO 1/2/3).

STAGE	TRAINING CODE	SORTIE DESCRIPTION	PILOT FLT HRS	PILOT SIM HRS	ECMO FLT HRS	ECMO SIM HOURS	PILOT REFLY	PILOT CRP	ECMO REFLY	ECMO CRP	PILOT REFRESHER	ECMO REFRESHER	EVALUATED	CHAINING	CONDITIONS	AC / SIM	MIN # OF AC
		EA-6B 200 LEVEL															
SEP	200	EP SIM		1.0		1.0	*		*							S	
SNAV	201	NAVIGATION SIM		2.0		2.0	*		*							S	
NAV	202	INSTRUMENT NAVIGATION	2.0		2.0		365	0.75	365	0.75				(220 NS)	(N)	A	1
NAV	203	RADAR NAVIGATION	2.0		2.0		365	0.75	365	0.75	X	X		202,(220 NS)	(N)	A	1
NAV	204	VISUAL NAVIGATION	2.0		2.0		180	1.00	180	1.00	X	X		(220 NS)	(NS)	A	1
SFAM	205	BAM SIM		1.0		1.0	*		*							S	
FAM	206	BASIC AIR MANEUVERS	1.5		1.5		180	1.00	180	1.00	X	X		(220 NS)	(NS)	A	1
Sub Total		FAM / NAV	7.5	4.0	7.5	4.0		3.50		3.50							
FORM	210	SECTION BASICS	2.0		2.0		*		*					202,(220 NS)	(N)	A	2
FORM	211	SECTION TAC FORM	2.0		2.0		180	1.00	180	0.75				(220 NS)	(N)	A	2
FORM	212	SECTION VNAV	2.0		2.0		180	1.00	180	0.75	X	X		204,211,(220 NS)	(NS)	A	2
Sub Total		FORMATION	6.0	0.0	6.0	0.0		2.00		1.50							
NS	220	NS FAM	2.0		2.0		90	1.00	90	1.00	X	X			NS	A	1
NS	221	NS VNAV	2.0		2.0		180	1.00	180	1.00				204,220	NS	A	1
NS	222	NS SECTION HIGH	2.0		2.0		*		*					220	NS	A	2
NS	223	NS SECTION VNAV	2.0		2.0		*		*					220,221	NS	A	2
Sub Total		NIGHT SYSTEMS	8.0		8.0			2.00		2.00							
AR	230	DAY AIR REFUELING	1.0		1.0		180	1.00	365	0.50	X	X				A	1
AR	231	NIGHT REFUELING	1.0		1.0		180	1.00	365	0.50	X			230,(220 NS)	N	A	1
Sub Total		AIR REFUELING	2.0		2.0			2.00		1.00							
SES	240	OBS BASICS SIM		2.0		2.0	545	0.50	365	0.25		X				S	
SES	241	OBS SIG RECCE SIM		2.0		2.0	545	0.50	365	0.25	X	X				S	
ES	242	OBS BASICS			2.0				365	0.50		X		(220 NS)	(N)	A	1
TES	243	MATT/IDM		1.0		1.0	*		365	0.50		X		(220 NS)	(N)	S/A	1
ES	244	HARM ES			1.0				365	0.50		X		(220 NS)	(N)	A	1
ES	245	SCANNER			0.5				365	0.50		X		(220 NS)	(N)	A	1
Sub Total		ES	0.0	5.0	3.5	5.0		1.00		2.50							
SEA	250	TJS VS RADAR SIM		2.0		2.0	545	0.50	365	0.25		X				S	
SEA	251	TJS VS COMMS SIM		2.0		2.0	545	0.50	365	0.25		X				S	
EA	252	TJS BASICS			2.0				365	0.25		X		(220 NS)	(N)	A	1
TEA	253	USQ-113 EA SIM		2.0		2.0	545	0.50	365	0.25		X				S	
EA	254	USQ-113 EA			1.0				365	0.50		X		(220 NS)	(N)	A	1
SEA	255	HARM F/S SIM		1.0		1.0	545	0.50	365	0.25		X				S	
SEA	256	HARM B/S SIM				1.0			365	0.25		X				S	
EA	257	HARM F/S	1.0		1.0		365	0.50	365	0.50	X	X		(220 NS)	(N)	A	1

			FLIGHT HOURS	SIM HOURS	FLIGHT HOURS	SIM HOURS		CRP		CRP							
EA	258	HARM B/S			1.0				365	0.50		X		(220 NS)		(N)	A	1
Sub Total		EA	1.0	7.0	5.0	8.0		2.50		3.00							
STRXN	260	THREAT REACT SIM		1.0		1.0	*		*							s	
TRXN	261	THREAT REACT	1.5		1.5		365	2.00	365	1.50	X	X	(220 NS)	(NS)	A	1
Sub Total		TRXN	1.5	1.0	1.5	1.0		2.00		1.50							

	FLIGHT HOURS	SIM HOURS	FLIGHT HOURS	SIM HOURS		CRP		CRP
Sub Total 200	26.0	17	33.5	18		15.0		15.0
Total CRP 100	*	*	*	*		60.0		60.0
Total CRP 100+200	26.0	17	33.5	18		75.0		75.0

STAGE	TRAINING CODE	SORTIE DESCRIPTION	PILOT FLIGHT HRS	PILOT SIM HRS	ECMO FLIGHT HRS	ECMO SIM HRS	PILOT REFLY	PILOT CRP	ECMO REFLY	ECMO CRP	PILOT REFRESHER	ECMO REFRESHER	EVALUATED	CHAINING	CONDITIONS	AC / SIM	MIN # OF AC
		EA-6B 300 LEVEL															
SOAS	300	AIR INTERDICTION SIM		2.0		2.0	*		*							S	
OAS	301	AIR INTERDICTION	2.0		2.0		365	1.50	365	1.50	X	X		(220 NS)	(N)	A	1
OAS	302	NS AIR INTERDICTION	2.0		2.0		365	1.50	365	1.50	X	X		301,(220 NS)	NS	A	1
SOAS	303	ARMED RECCE SIM		2.0		2.0	*		*							S	
OAS	304	ARMED RECCE	2.0		2.0		365	1.50	365	1.50	X	X		(220 NS)	(N)	A	1
OAS	305	NS ARMED RECCE	2.0		2.0		365	1.50	365	1.50	X	X		304,(220 NS)	NS	A	1
SOAS	306	CAS SIM		2.0		2.0	*		*							S	
OAS	307	CAS	2.0		2.0		365	1.50	365	1.50	X	X		(220 NS)	(N)	A	1
OAS	308	NS CAS	2.0		2.0		365	1.50	365	1.50	X	X		307,(220 NS)	NS	A	1
OAS	309	SECTION OAS	2.0		2.0		365	1.50	365	1.50				(220 NS)	(N)	A	2
Sub Total		OAS	14.0	6.0	14.0	6.0		10.50		10.50							
STFS	310	CONVOY OPS SIM		2.0		2.0	*		*					(220 NS)	(N)	S/A	1
TFS	311	CONVOY OPERATIONS	2.0		2.0		365	1.50	365	1.50				(220 NS)	(N)	A	1
TFS	312	DIRECT ACTION	2.0		2.0		365	1.50	365	1.50				(220 NS)	(N)	A	1
TFS	313	ASSAULT SUPPORT	2.0		2.0		365	1.50	365	1.50	X	X		(220 NS)	(N)	A	1
STFS	314	CSAR / TRAP SIM		2.0		2.0	*		*					(220 NS)	(N)	S/A	1
STFS	315	IO SIM		2.0		2.0	*		*					(220 NS)	(N)	S/A	1
STFS	316	MOUT SIM		2.0		2.0	365	1.00	365	1.00	X	X		(220 NS)	(N)	S/A	1
STFS	317	CSF SIM		2.0		2.0	365	1.00	365	1.00	X	X		(220 NS)	(N)	S/A	1
Sub Total		TFS	6.0	10.0	6.0	10.0		6.50		6.50							
DEFTAC	320	WVR 1v1 DISSIMILAR	1.5		1.5		365	1.50	365	1.50	X	X				A	1
SDEFTAC	321	BVR SIM		2.0		2.0	*		*							S	
DEFTAC	322	BVR 1v1 DISSIMILAR	1.5		1.5		365	1.50	365	1.50	X	X	X			A	1
Sub Total		DEFTAC	3.0	2.0	3.0	2.0		3.00		3.00							
			FLIGHT HOURS	SIM HOURS	FLIGHT HOURS	SIM HOURS		CRP		CRP							
Sub Total 300			23.0	18	23.0	18		20.0		20.0							
Total CRP 100+200			*	*	*	*		75.0		75.0							
Total CRP 100-300			23.0	18	23.0	18		95.0		95.0							

STAGE	TRAINING CODE	SORTIE DESCRIPTION	PILOT FLIGHT HRS	PILOT SIM HRS	ECMO FLIGHT HRS	ECMO SIM HRS	PILOT REFLY	PILOT CRP	ECMO REFLY	ECMO CRP	PILOT REFRESHER	ECMO REFRESHER	EVALUATED	CHAINING	CONDITIONS	AC / SIM	MIN # OF AC
EA-6B 400 LEVEL																	
FORM	400	DIVISION BASICS	2.0		2.0		365	0.50	365	0.25	X	X		(220 NS)	(N)	A	3
Sub Total		FORMATION	2.0	0.0	2.0	0.0		0.50		0.25							
AR	410	LOW ALT TANKING	1.0		1.0		365	0.50	365	0.25	X	X		230,(231),(220 NS)	(N)	A	1
Sub Total		AIR REFUELING	1.0	0.0	1.0	0.0		0.50		0.25							
EW	420	ALE-43	2.0		2.0		*		365	0.50	X	X		(220 NS)	(N)	A	1
EW	421	EP TRAINING	2.0		2.0		365	0.50	365	0.50				(220 NS)	(N)	A	1
SEW	422	ESG SUPPORT SIM		2.0		2.0	365	0.50	365	0.50	X	X		(220 NS)	(N)	S/A	1
EW	423	ES WITH NAT. ASSETS	2.0		2.0		365	0.50	365	0.50	X	X		(220 NS)	(N)	A	1
EW	424	LFE OAS/TFS	2.0		2.0		365	1.00	365	1.00	X	X		(220 NS)	(N)	A	1
Sub Total		EW	8.0	2.0	8.0	2.0		2.50		3.00							
TRXN	430	SECTION THT REACT	1.5		1.5		365	0.50	365	0.50	X	X	X	261,(220 NS)	(NS)	A	2
Sub Total		TRXN	1.5	0.0	1.5	0.0		0.50		0.50							
DEFTAC	440	SECTION DEFTAC	1.5		1.5		365	0.50	365	0.50	X	X	X	322		A	2
Sub Total		DEFTAC	1.5	0.0	1.5	0.0		0.50		0.50							
SEAF	450	EAF/FCLP SIM		2.0		2.0	*		*							S	
EAF	451	DAY EAF	1.0		1.0		365	0.25	365	0.25	X	X	X			A	1
EAF	452	NIGHT EAF	1.0		1.0		365	0.25	365	0.25	X	X	X	451,(220 NS)	N	A	1
Sub Total		EAF	2.0	2.0	2.0	2.0		0.50		0.50							
FCLP	460	DAY FCLP	1.0		1.0		*		*				X			A	1
FCLP	461	NIGHT FCLP	1.0		1.0		*		*				X	(220 NS)	N	A	1
SCQ	462	CQ SIM		2.0		2.0	*		*							S	
CQ	463	DAY CQ	1.0		1.0		*		*				X			A	1
CQ	464	NIGHT CQ	1.0		1.0		*		*				X	(220 NS)	N	A	1
Sub Total		CQ	4.0	2.0	4.0	2.0		0.00		0.00							
			FLIGHT HOURS	SIM HOURS	FLIGHT HOURS	SIM HOURS		CRP		CRP							
Sub Total 400			20.0	6.0	20.0	6.0		5.0		5.0							
Total CRP 100-300			*	*	*	*		95.0		95.0							
Total CRP 100-400			20.0	6	20.0	6		100		100							

			EA-6B 500 LEVEL														
STAGE	TRAINING CODE	SORTIE DESCRIPTION	PILOT FLIGHT HRS	PILOT SIM HRS	ECMO FLIGHT HRS	ECMO SIM HRS	PILOT REFLY	PILOT CRP	ECMO REFLY	ECMO CRP	PILOT REFRESHER	ECMO REFRESHER	EVALUATED	CHAINING	CONDITIONS	AC / SIM	MIN # OF AC
NS	500	NS IUT 1	2.0		2.0		*		*				X		NS	A	1
NS	501	NS IUT 2	2.0		2.0		*		*				X		NS	A	1
NS	502	NS IUT 3	2.0		2.0		*		*				X		NS	A	2
NS	503	NS CERT 4	2.0		2.0		*		*				X		NS	A	2
Sub Total		NS IUT	8.0	0.0	8.0	0.0											
DEFTAC	510	DEFTAC IUT 1	1.5		1.5		*		*				X			A	1
DEFTAC	511	DEFTAC IUT 2	1.5		1.5		*		*				X			A	1
DEFTAC	512	DEFTAC IUT 3	1.5		1.5		*		*				X			A	1
DEFTAC	513	DEFTAC IUT 4	1.5				*						X			A	2
DEFTAC	514	DEFTAC CERT 5	1.5		1.5		*		*				X			A	1
DEFTAC	515	DEFTAC CERT 6			1.5				*				X			A	1
DEFTAC	516	DEFTAC CERT 7	1.5				*						X			A	2
Sub Total		DEFTAC IUT	9.0	0.0	7.5	0.0											
			FLIGHT HOURS	SIM HOURS	FLIGHT HOURS	SIM HOURS											
Sub Total 500			17.0	0.0	15.5	0.0											

STAGE	TRAINING CODE	SORTIE DESCRIPTION	PILOT FLIGHT HRS	PILOT SIM HRS	ECMO FLIGHT HRS	ECMO SIM HRS	PILOT REFLY	PILOT CRP	ECMO REFLY	ECMO CRP	PILOT REFRESHER	ECMO REFRESHER	EVALUATED	CHAINING	CONDITIONS	AC / SIM	MIN # OF AC
		EA-6B 600 LEVEL															
REQ	600	NATOPS CHK F/S		2.0		2.0	365		365		X	X	X			S/A	
REQ	601	NATOPS CHK B/S				2.0			365			X	X			S/A	
REQ	602	INST CHK		2.0		2.0	365		365		X	X	X			S/A	
REQ	603	CRM CHK		2.0		2.0	365		365		X	X	X			S/A	
Sub Total		**REQUIREMENTS**	0.0	6.0	0.0	8.0											
QUAL	610	NS					*		*								
QUAL	611	DEFTAC					*		*								
Sub Total		**QUALIFICATIONS**	0.0	0.0	0.0	0.0											
CSC	620	FAM/NAV					*		*								
CSC	621	FORM					*		*								
CSC	622	AR					*		*								
CSC	623	ES					*		*								
CSC	624	EA					*		*								
CSC	625	TRXN					*		*								
CSC	626	OAS					*		*								
CSC	627	TFS					*		*								
Sub Total		**CORE SKILL COMPLETE**	0.0	0.0	0.0	0.0											
SLUT	630	SLUT W/U	2.0				*						X				
SLUT	631	SLUT W/U	2.0				*						X				
SLUT	632	SLUT W/U	2.0				*						X				
SLUT	633	SLUT W/U	2.0				*						X		NS		
SLUT	634	SLUT W/U	1.0				*						X				
SLUT	635	SLUT W/U	1.0				*						X		NS		
SLUT	636	SLUT CHECK					*					X	X				
DESIG	637	SL DESIG					*										
DLUT	638	DLUT W/U	2.0				*						X				
DLUT	639	DLUT W/U	2.0				*						X		NS		
DLUT	640	DLUT W/U					*						X				
DLUT	641	DLUT W/U					*						X		NS		
DLUT	642	DLUT CHECK					*					X	X				
DESIG	643	DL DESIG					*										
MCUT	644	MCUT P&B	2.0		2.0		*		*				X				
MCUT	645	MCUT P&B	2.0		2.0		*		*				X				
MCUT	646	MCUT P&B	2.0		2.0		*		*				X				
MCUT	647	MCUT P&B	2.0		2.0		*		*				X				
MCUT	648	MCUT P&B	2.0		2.0		*		*				X				

Cat	No.	Task	Flight Hours	Sim Hours	Flight Hours	Sim Hours						Notes			
MCUT	649	MCUT P&B	2.0		2.0		*	*			X				
MCUT	650	MCUT P&B	2.0		2.0		*	*			X				
MCUT	651	MCUT FLT	2.0		2.0		*	*			X				
MCUT	652	MCUT FLT	2.0		2.0		*	*			X				
MCUT	653	MCUT FLT	2.0		2.0		*	*			X				
MCUT	654	MCUT FLT	2.0		2.0		*	*			X				
MCUT	655	MCUT FLT	2.0		2.0		*	*			X				
MCUT	656	MCUT FLT	2.0		2.0		*	*			X				
MCUT	657	MCUT FLT	2.0		2.0		*	*			X				
MCUT	658	MCUT CHECK					*	*	X	X	X				
DESIG	659	MC DESIG					*	*							
DESIG	660	NSI					*	*							
DESIG	661	DEFTACI					*	*							
DESIG	662	EWTO					*	*							
DESIG	663	WTI					*	*							
DESIG	664	NATOPSI					*	*							
DESIG	665	ASST NATOPI					*	*							
DESIG	666	INST EVAL					365	*							
DESIG	667	CRMI					*	*							
DESIG	668	CRMF					*	*							
DESIG	669	LSO					*								
FCF	670	FCF CHECK		2.0		2.0	*	*	X	X	X				
DESIG	671	FCF DESIG					*	*							
DESIG	672	RISK MANAGER					*	*							
Sub Total		W/U & DESIGNATION													
AR	680	DAY KC 135 AR					90		X			230			
AR	681	NIGHT KC 135 AR					90		X			231,680,(220 NS)(N)			
SWD	682	LIVE HARM SHOOT					1095	1095	X	X					
TRK	683	FORM					*	*							
TRK	684	SL					*								
TRK	685	DL					*								
TRK	686	MC					*	*							
TRK	687	FCF	1.0				*	*							
TRK	688	SERE					*	*							
TRK	689	EJECT SEAT					*	*							
TRK	690	SWIM/PHYS					*	*							
TRK	691	FLIGHT PHYS					*	*							
TRK	692	ASO					*	*							
Sub Total		TRACKING													
			FLIGHT HOURS	SIM HOURS	FLIGHT HOURS	SIM HOURS									
Sub Total 600			NA	NA	NA	NA									

162. <u>EVENT CONVERSION MATRIX</u>

PILOT

New Stage	New TRNG Code	Old Stage	Old TRNG Code
200 Level			
FAM/NAV	200	EP	201
	201	NAV	202
	202	NAV	203
	203	NAV	203
	204	NAV	204
	205	FAM	220
	206	FAM	221
FORM	210		
	211	FORM	205
	212	FORM	206
NS	220	NS	210
	221	NS	211
	222	NS	212
	223	NS	212
AR	230	AR	207
	231	AR	307
ES	240	ES	243
	241	ES	243
	242		
	243		
	244		
	245		
EA	250	DAS	350
	251	ES	242
	252		
	253	ES	242
	254		
	255	HARM	231
	256		
	257	HARM	233
	258		
TRXN	260	DEFTAC	321
	261	DEFTAC	322
300 Level			
OAS	300	DAS	250
	301	DAS	252
	302		
	303	RSEAD	260
	304	RSEAD	262
	305		
	306	RSEAD	360

ECMO

New Stage	New TRNG Code	Old Stage	Old TRNG Code
200 Level			
FAM/NAV	200	EP	201
	201	NAV	202
	202	NAV	203
	203	NAV	203
	204	NAV	204
	205	FAM	220
	206	FAM	221
FORM	210		
	211	FORM	205
	212	FORM	206
NS	220	NS	210
	221	NS	211
	222	NS	212
	223	NS	212
AR	230	AR	207
	231		
ES	240	ES	240
	241	ES	241
	242	ES	244
	243		
	244	HARM	234
	245		
EA	250	DAS	251
	251	ES	242
	252	ES	244
	253	ES	242
	254	ES	242
	255	HARM	231
	256	HARM	232
	257	HARM	233
	258	HARM	234
TRXN	260	DEFTAC	321
	261	DEFTAC	322
300 Level			
OAS	300	DAS	250
	301	DAS	253
	302		
	303	RSEAD	261
	304	RSEAD	263
	305		
	306	RSEAD	361

	307	RSEAD	362			307	RSEAD	363
	308					308		
	309	DAS	350			309	DAS	351
TFS	310	STF	270		TFS	310	STF	271
	311	TFS	370			311	TFS	370
	312	TFS	370			312	TFS	370
	313	TFS	370			313	TFS	370
	314					314		
	315					315		
	316					316		
	317					317		
DEFTAC	320	DEFTAC	320		DEFTAC	320	DEFTAC	320
	321	DEFTAC	323			321	DEFTAC	323
	322	DEFTAC	324			322	DEFTAC	324
400 Level					400 Level			
FORM	400				FORM	400		
AR	410	AR	407		AR	410		
EW	420	DAS	451		EW	420	DAS	451
	421	FEP	673			421	FEP	673
	422	WAS	480			422	WAS	480
	423	ES	440			423	ES	440
	424	DAS	450			424	DAS	450
TRXN	430				TRXN	430		
DEFTAC	440	DEFTAC	421		DEFTAC	440	DEFTAC	421
EAF	450	EAF	490		EAF	450	EAF	490
	451	EAF	491			451	EAF	491
	452	EAF	492			452	EAF	492
FCLP	460	FCLP	493		FCLP	460	FCLP	493
	461	FCLP	494			461	FCLP	494
	462	CQ	495			462	CQ	495
	463	CQ	496			463	CQ	496
	464	CQ	497			464	CQ	497
500 Level					500 Level			
NS	500				NS	500		
	501					501		
	502					502		
	503					503		
DEFTAC	510				DEFTAC	510		
	511					511		
	512					512		
	513					513		
	514					514		
	515					515		
	516					516		
600 Level					600 Level			
REQ	600	SCHK	600		REQ	600	SCHK	600
	601	SCHK	601			601	SCHK	601
	602	SCHK	602			602	SCHK	602
	603	SCHK	604			603	SCHK	604

QUAL	610				QUAL	610		
	611					611		
CSC	620				CSC	620		
	621					621		
	622					622		
	623					623		
	624					624		
	625					625		
	626					626		
	627					627		
SLUT	630				SLUT	630		
	631					631		
	632					632		
	633					633		
	634					634		
	635					635		
	636					636		
DESIG	637				DESIG	637		
DLUT	638				DLUT	638		
	639					639		
	640					640		
	641					641		
	642					642		
DESIG	643				DESIG	643		
MCUT	644				MCUT	644		
	645					645		
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	657					657		
	658					658		
DESIG	659				DESIG	659		
	660					660		
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	664					664		
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	666					666		
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	669					669		
FCF	670	SCHK	603		FCF	670	SCHK	603
DESIG	671				DESIG	671		
	672					672		
AR	680	AR	607		AR	680	AR	607
	681	AR	608			681	AR	608
SWD	682	SWD	630		SWD	682	SWD	630
TRK	683				TRK	683		
	684					684		
	685					685		
	686					686		
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